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NOVEMBER 1955

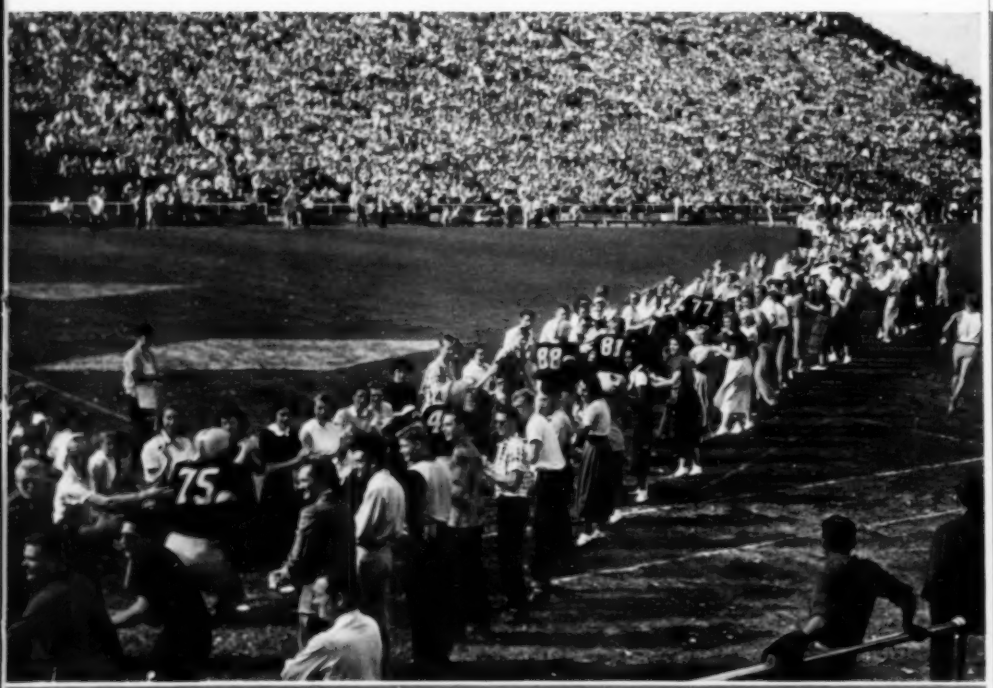
The Administrator Reconsidered

Planning for Future Student Housing

Safety Considerations in Handling Crowds

Budgeting for Maintenance Program

Smorgasbord Goes Collegiate



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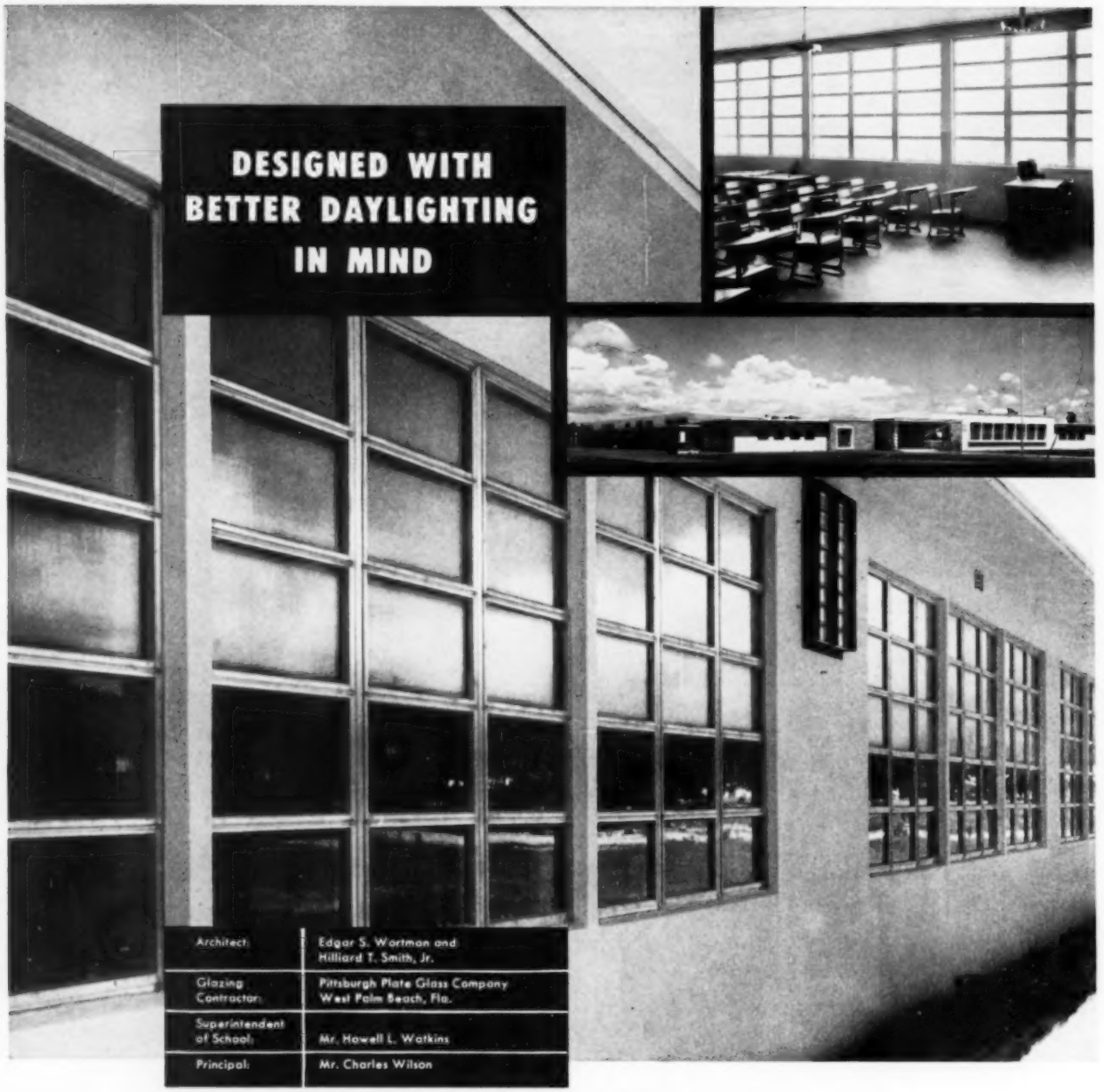
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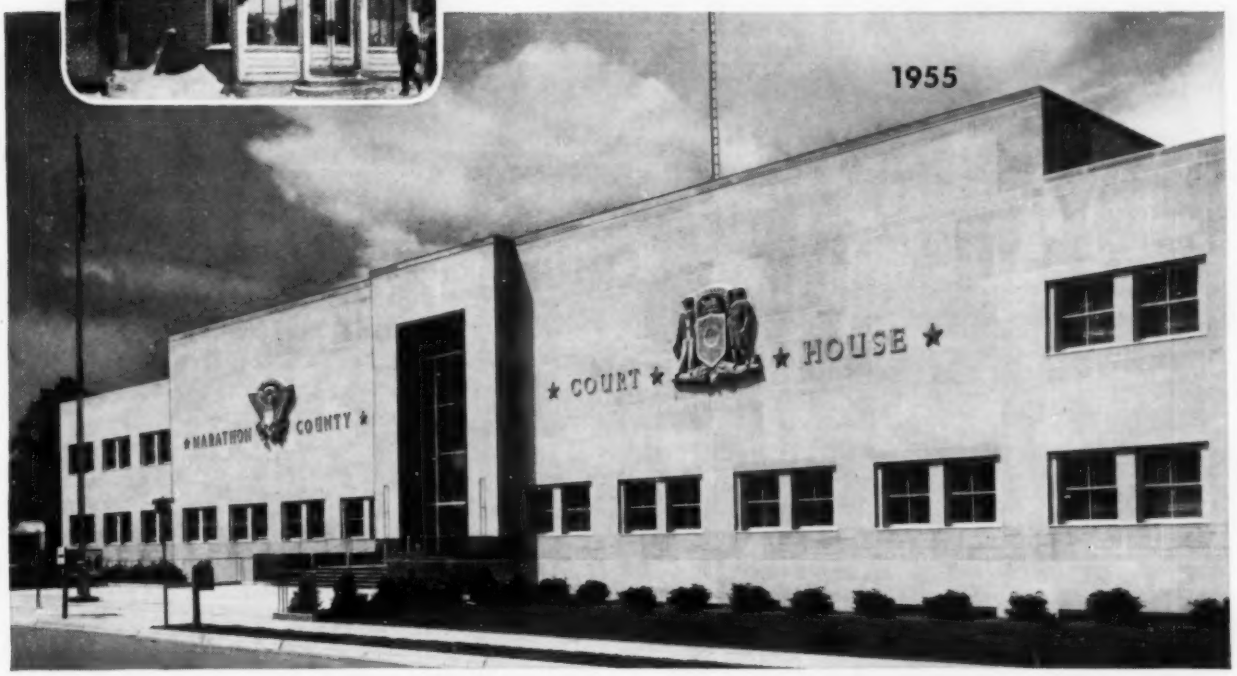

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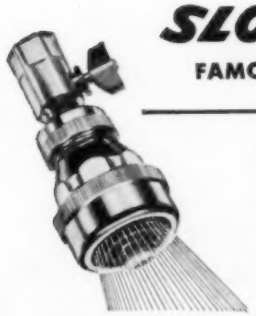

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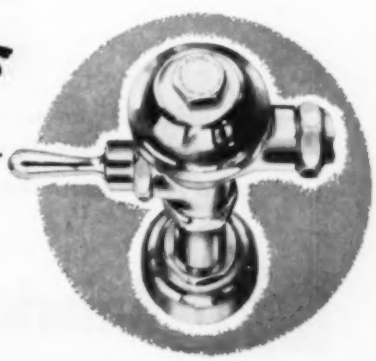

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Among the Authors

ROBERT M. HUTCHINS, director of the Fund for the Republic, on page 23 discusses in detail the administrative problems that he has faced in serving both as a university president and as an executive for a nonprofit foundation. Dr. Hutchins first came to national attention as the 30 year old president of the University of Chicago, after having served as dean of the Yale University Law School. After more than two decades at the University of Chicago, at which far-reaching changes in curriculum and university policy were established, he left to accept appointment as an executive of the Ford Foundation, serving with Paul G. Hoffman, the original director of the Ford Foundation. Some years later, Dr. Hutchins was named to the presidency of the Fund for the Republic, a subsidiary or affiliate of the Ford Foundation.

Herbert C. O'Neil

HERBERT C. O'NEIL, superintendent of buildings and grounds at the school of medicine and university hospitals of the University of Oklahoma, on page 27 outlines the technics followed in setting up a budget for maintenance expenditures. Mr. O'Neil has been in his present position since 1947 except for duty in Korea as a major in the Army Corps of Engineers. He also served for a three-year period as resident engineer of the Alaska Defense Command. He serves on the committee on engineering and maintenance of the American Hospital Association, and is a member of the National Association of Physical Plant Administrators of Universites and Colleges.

Clayton W. DeMent

CLAYTON W. DEMENT, safety engineer at Purdue University, calls attention on page 30 to the serious problems involved in handling crowds. Football games and other special events constitute familiar campus hazards and call for careful preliminary inspections and training programs. Mr. DeMent has been safety engineer for Purdue for seven years; for three years prior to that time he was safety engineer of the U.S. Gypsum Co. in Chicago. During World War II he served for three and a half years as a naval officer. Previously he had been an inspector in the internal security division of the War Department. Mr. DeMent has a bachelor of science degree in fire prevention engineering from Armour Institute of Technology, Chicago, and holds an aerological engineering certificate from the postgraduate school of the U.S. Naval Academy.

Harold C. Riker

HAROLD C. RIKER, director of housing at the University of Florida, summarizes on page 49 the major conclusions of his doctoral thesis. His thesis, "A New View of College Residence Halls," has been accepted for publication by Columbia University; it represents a study of college residence halls that involved 8000 miles of travel to some fifty colleges and universities from Massachusetts to Texas, and from Wisconsin to Florida. Mr. Riker was assistant director of the Florida Union at the University of Florida from 1938 to 1941, and has been director of housing at the University of Florida since 1941 with the exception of two periods of active duty with the U.S. Navy. The navy has seen to it that, as an officer with the rank of commander, he could visit the Southwest Pacific and Australia. He enjoys amateur photography and has a strong side interest in history.

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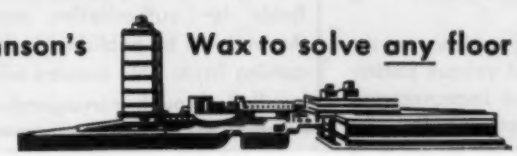


Wax to solve any floor problem

QUESTIONS AND ANSWERS

Financial Support

Question: In what way can an institution improve its position for financial support for long-range capital improvement?—T.H., Wyo.

ANSWER: Financial support of long-range capital improvements in institutions of higher learning normally is provided by one or a combination of several of the following sources: (1) gifts and bequests; (2) governmental appropriations and grants; (3) current or surplus funds of the institution; (4) loans from either commercial or governmental sources.

An important first step in improving an institution's position for financial support of needed capital improvements is the preparation of a well documented and substantiated long-range building program. The administration and the trustees, after full study, should lay out a blueprint of plant needs for a reasonable number of years into the future. After having determined needs, the institution then should inventory its various resources to determine how each element of the long-range program can best be financed in terms of prevailing circumstances.

If it is determined that part or all of the long-range program is to be financed through gifts and bequests, it is imperative that the institution organize effectively for fund raising. This is particularly pertinent in the private institution which is not able to obtain governmental appropriations for building requirements.

More and more private institutions are establishing fund raising offices, the personnel of which devote full time to raising money for institutional needs both for current operations and for long-range capital improvements. It is frequently desirable, particularly in the case of special building projects, for the work of the fund raising office to be supplemented through the employment of professional fund raising counsel.

There is a growing tendency on the part of both state and private institutions to finance capital improvements, particularly those involving facilities for self-supporting activities, such as residence halls and dining halls, through loans from either private sources or the federal government. Here again, a well worked out program of needs, together with a careful analysis of possible financing, will support the position of the institution in obtaining loans at favorable interest rates. A few institutions are able to finance some of their capital improvements program through their regular operating budgets or from accumulated surplus funds. In these cases the trustees have only to determine projects to be selected on the basis of most urgent needs.—CLARENCE SCHEPS, *controller, Tulane University.*

Student Activities

Question: What is the desirable relation of student personnel workers, faculty and administration to student participation and activities, and does minimum control lead to maximum benefits?—C.J., Mo.

ANSWER: My answer to this question is a qualified Yes. I feel that the more responsibility and authority students can effectively accept for their own activities, the greater the value of the activities and the more valuable the participation in them. An ideal relationship between faculty and administration and student activities, therefore, is one of providing *direction* and *guidance* with a minimum of *control.*

An ideal balance makes maximum use of the experience and continuity of faculty and administrative personnel on the one hand, and on the other the natural interests that students have in their chosen activities and the worthwhile experience that can come to them from responsible participation in these activities.—EDWARD CRATSLEY, *vice president, Swarthmore College.*

If you have a question on business or departmental administration that you would like to have answered, send your query to COLLEGE and UNIVERSITY BUSINESS, 919 North Michigan Avenue, Chicago 11, Ill. Questions will be forwarded to leaders in appropriate college and university fields for authoritative replies. Answers will be published in forthcoming issues. No answers will be handled through correspondence.

Average Class Size

Question: What factors need to be considered in determining average, maximum and minimum class sizes?—L.R., N.Y.

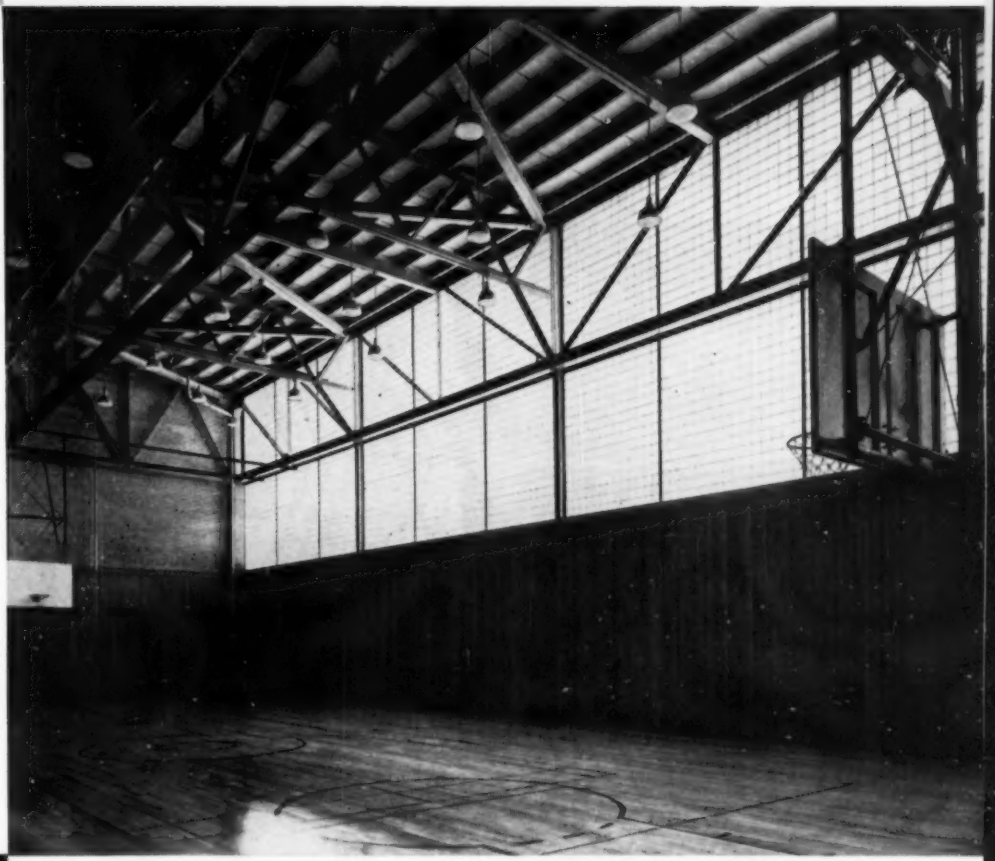
ANSWER: The technics of determining average class size in colleges and universities leave much to be desired. The two major factors are those of level of instruction and type of educational program. In general, there has been some tendency to decrease class size in the upper division and graduate programs in scientific courses. There also is some tendency to relate the class size to the need for laboratory sections of a particular course of study.

Courses requiring detailed instruction during a class period, as in mathematics, appear to require smaller classes than those primarily involving lectures. Likewise, courses in which there may be much participation on the part of members of the class, such as the study of foreign languages, also may be limited in class size. On the other hand, the class size of certain courses, such as may be found in a law school, which primarily involve a lecture with subsequent work to be done by the students in the law library, can be fairly substantial.

In view of continuing increase in costs and increasing enrollments, it may be necessary to take a fairly critical look at curriculums and present methods of instruction. It may be possible to devise new methods of instruction or a combination of methods that will permit larger class sections and thus reduce costs. It also will be necessary to review utilization of existing facilities and to plan future classrooms and laboratories to accommodate class sections of the sizes determined to be desirable.—RAYMOND W. KETTLER, *controller, Regents of the University of California.*

OWENS-ILLINOIS GLASS BLOCK* PANELS daylight this huge gymnasium... INSULATE LIKE AN 8" WALL

Gymnasium at Northeastern University, Boston, Massachusetts. Shepley, Bulfinch, Richardson and Abbott, Architects. Volpe Construction Company, Contractor.



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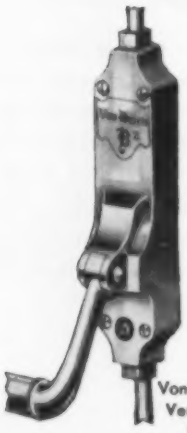

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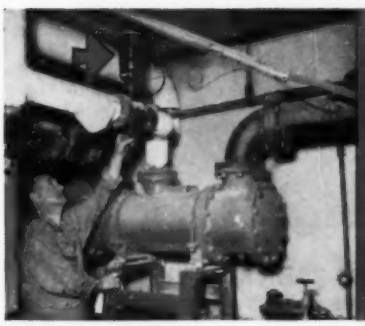

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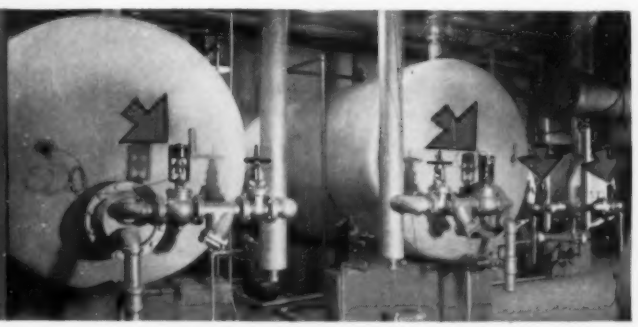

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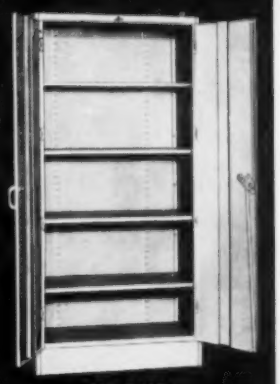

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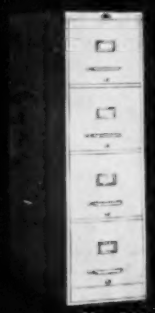
STORAGE CABINET

DOUBLE-TIER
LOCKERS

BOX LOCKERS



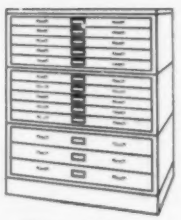
No. 5401
FILE

No. 6276
LIBRARY TABLE

No. 810 UTILITY CHAIR

No. 840
Secretary's
Chair

No. 540
Drafting
Chair



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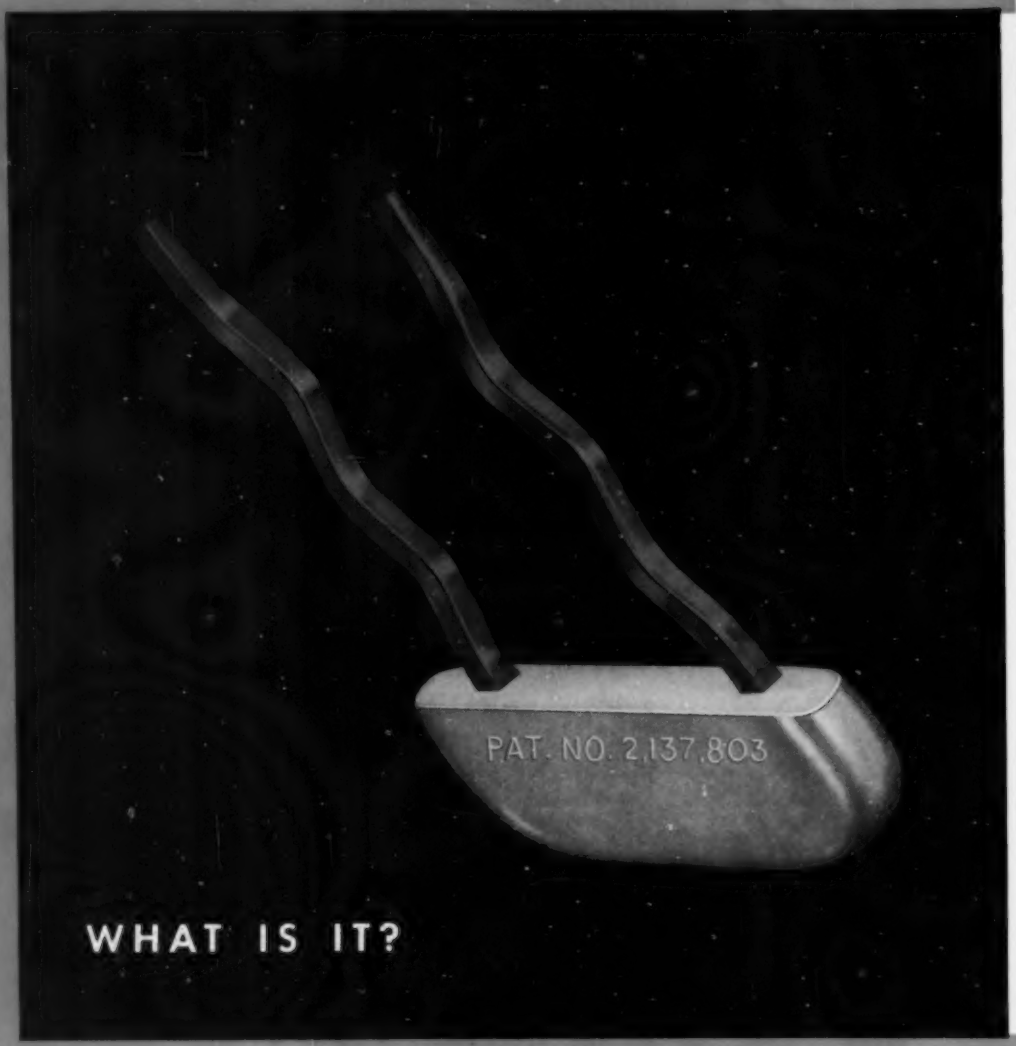

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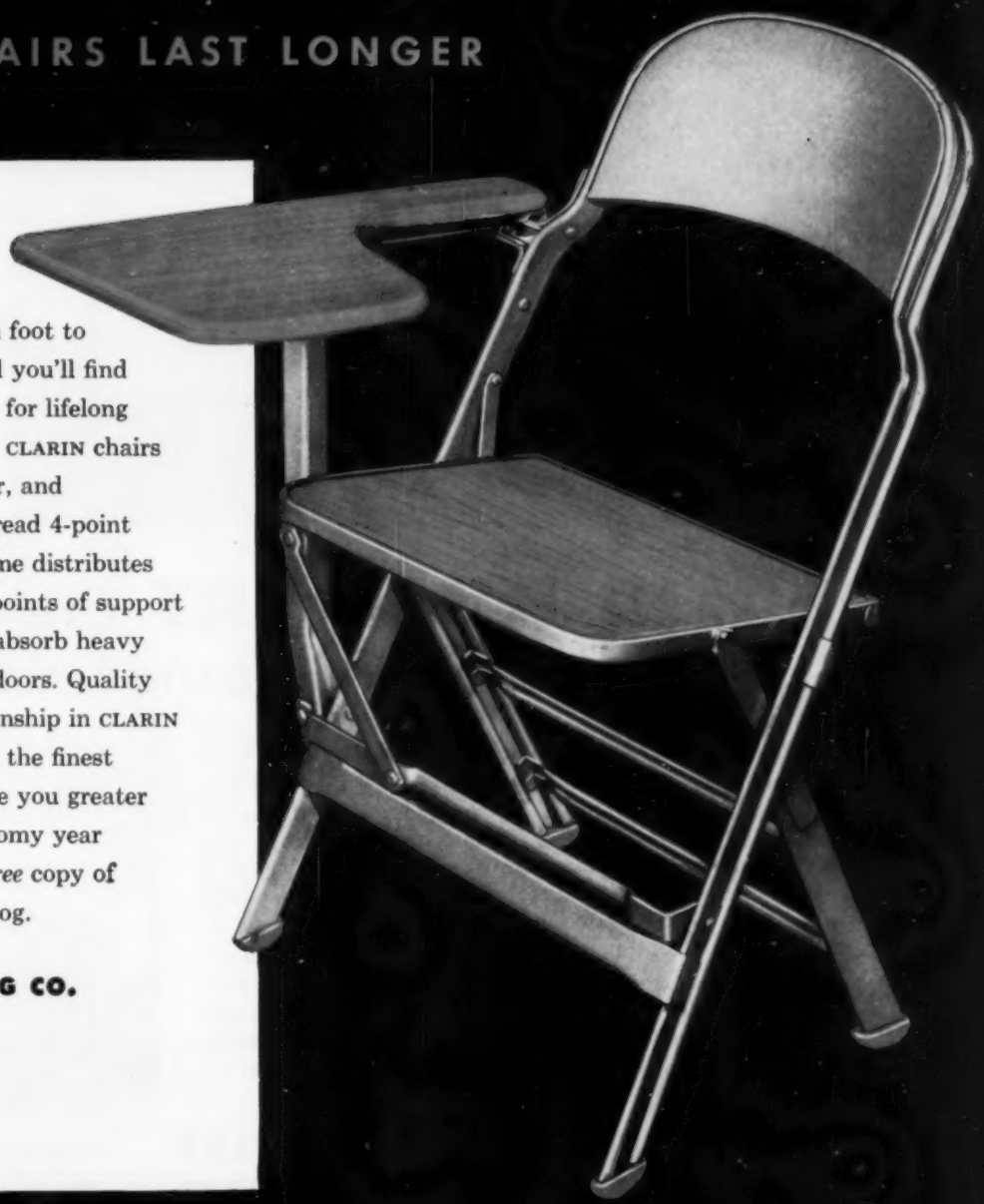

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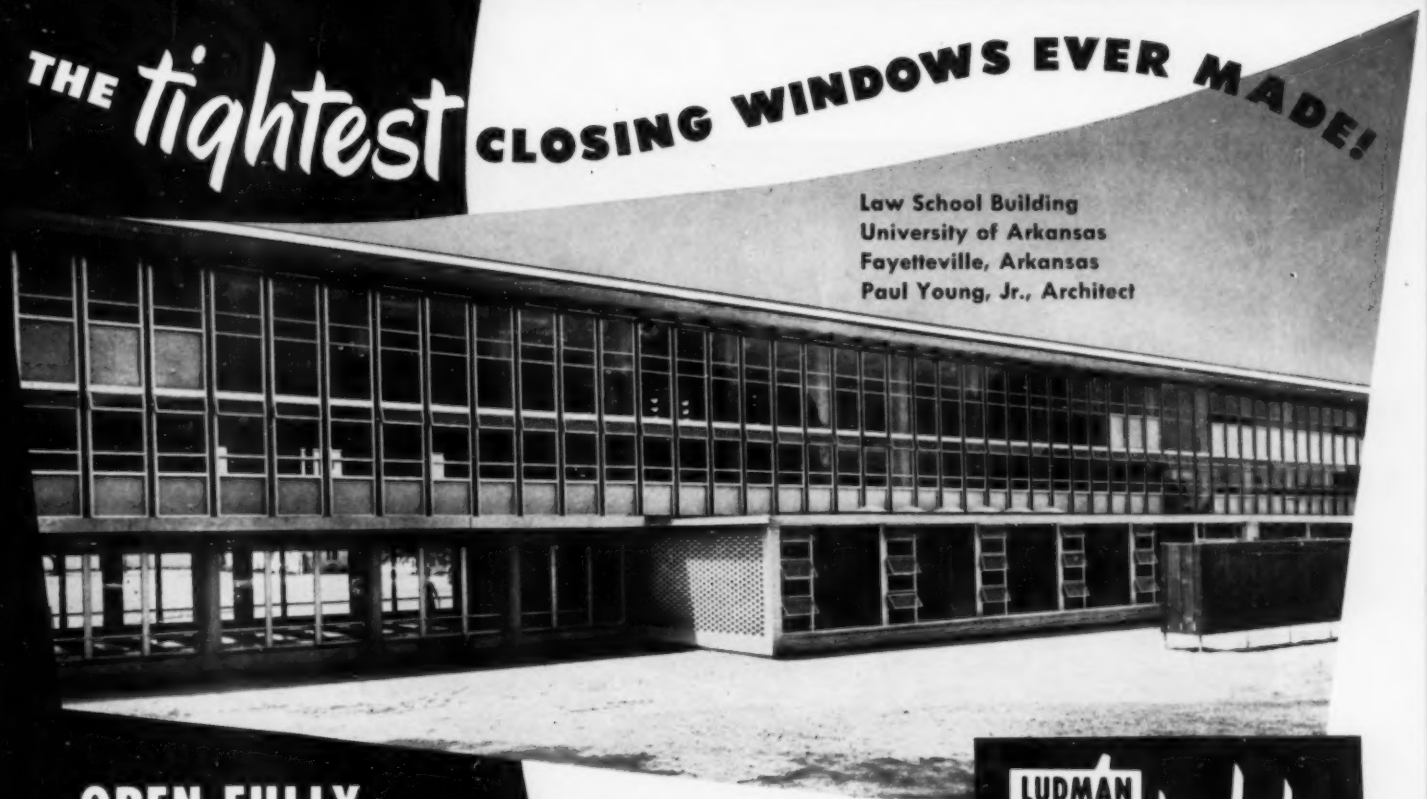

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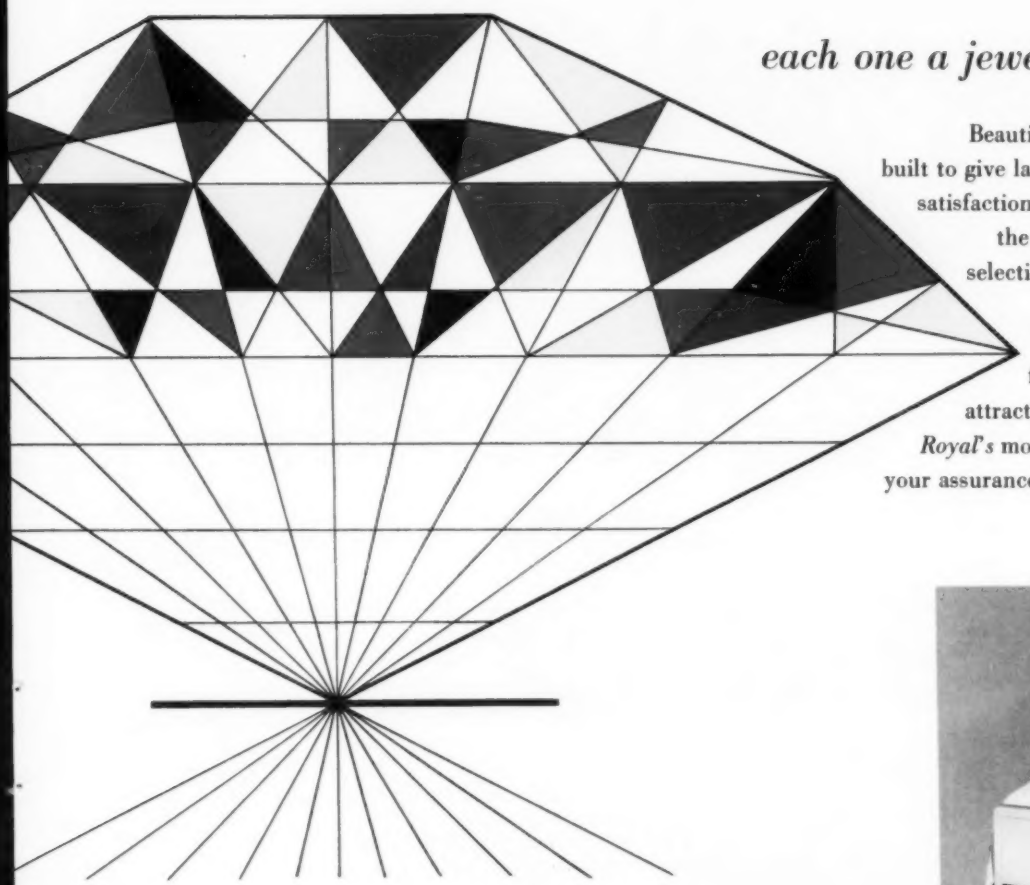

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Associated Architects: A. C. Zimmerman and James R. Friend
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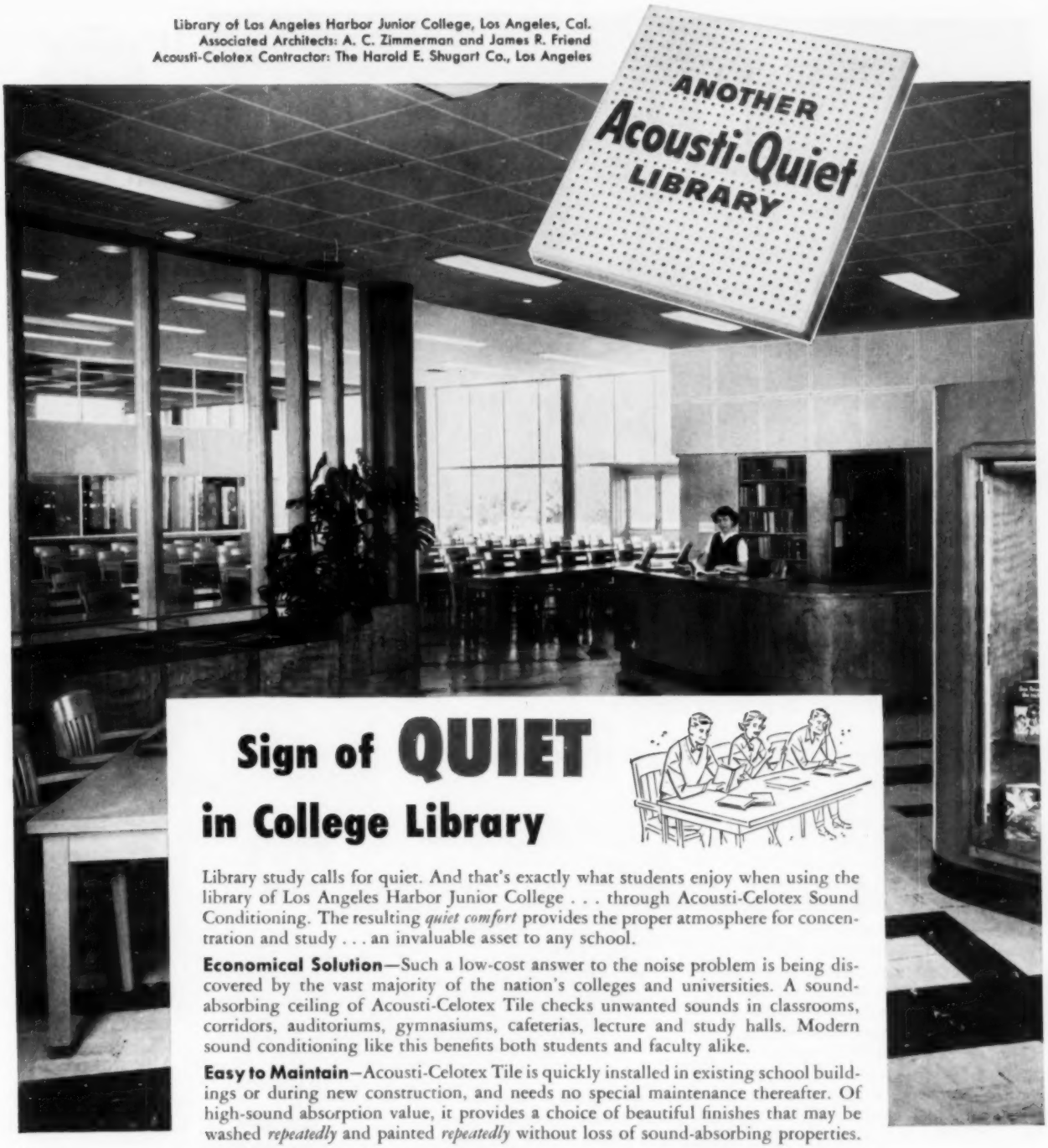

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Photo courtesy N. C. Cohen and Son, Columbus, Ohio

Seating for approximately 600 is provided in this colorful cafeteria.

This beautiful, four-floor building is approximately 400 feet long and 200 feet wide.

Libbey Heat-Treated Tumblers give efficient service in Ohio State University's new Student Union Cafeteria

BIG, beautiful and as modern as tomorrow, Ohio State's new Student Union is a rather unusual building—it was planned and financed by the students themselves.

The $4,100,000 structure, dedicated in 1951, is the center of Ohio State's student social life. Here, in its almost 200,000 square feet of floor space, are the finest of recreational, social, cultural and eating facilities, as well as office space for student activity groups and numerous other conveniences to serve the extra-curricular needs of the more than 18,000 students at the University.

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Since Tinolan does not wet thru to the warp, it dries quickly *without shrinkage or danger of mildew and "wet" odors.*

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Tinolan process was developed at one of the country's leading Museums to restore and condition priceless wool rugs and tapestries. Many of our leading Colleges and Universities have been using it for several years, after seeing the almost magic qualities of restoring and protecting rugs.

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G U E S T E D I T O R I A L

What Are We Doing to Offset Coming Shortage of Teachers?

DEANE W. MALOTT
President, Cornell University, Ithaca, N.Y.

THE TEACHER PROBLEM POSES BY ALL ODDS THE most serious dilemma of academic adventuring in the 1960's. The best documented figures indicate a shortage of 150,000 faculty members in the next decade.

Possible solutions cover the waterfront. First to mind, of course, are those of a financial nature. The average salary of all teachers in our institutions of higher learning today is still at the appalling level of $4700 a year. Better pay will be a powerful stimulant, especially vis-a-vis the competition from industry, government and research institutes.

Administrative effort might profitably be directed in a number of sectors such as these:

1. Increased foundation support for graduate fellowships, thus encouraging young people to undertake teaching careers.
2. Fellowships from industry for aiding those who propose to enter the teaching field.
3. Endowed professorships by corporations.
4. More unrestricted grants from corporations for general support of teaching in their own areas.
5. Federal scholarships for prospective teachers.

There are other avenues. Perhaps we need to take another look at the prestige of the university teacher, still the caricatured long-hair for the jibes of the sophisticates. Can we not somehow make him stand for what he most generally is—a hard-working and dedicated man who believes in what he is doing to earn a living and who goes home to mow the lawn or take his family on a picnic like anyone else?

We might well take a look at the Ph.D. degree. Indeed, we might devise a new degree designed on a broader base and focused toward the teaching career. Perhaps we ought not be tied to the doctor's degree at all, iconoclastic as the idea may seem.

We might well consider, too, more imaginative and effective use of the teachers we have. It is easier and cheaper to furnish assistance and teaching aid to a professor of history than to find the person and the wherewithal for two such professors.

I have never myself been sure that we are correct, in the academic hierarchy, in our worship of very small classes, under all conditions and for all subjects. I also have a sneaking feeling that we teach too many subjects in too great fragmentation. Some courses taught each semester could perhaps be offered once a year to twice as large a group, or alternated every other year with a different subject.

There may be a possibility, also, of cutting down on required laboratory courses—expensive alike in personnel, space, equipment and materials.

We shall have to be more penetrating, too, in searching out good teachers, wherever they may be found. Occasionally we may run them down in commerce and industry; government must have them by the score. Even the ministry might be a field for gleaning. And, too, the women, who have not maintained their proportionate share of the teaching field.

I feel sure we can accomplish more effective use of teachers by cooperating with neighboring institutions, in having dual appointments in two or more near-by colleges and universities. Another source that may be further exploited is the foreign scholar who would find satisfaction in the untrammeled ways of American education. More use might also be made of Negro teachers.

But regardless of the "recruiting" efforts we may undertake, there is one thing we university presidents can and must do to ensure that there is open and unequivocal invitation to all who would share in seeking to build the American youth of the future. We must bend our efforts to preserve free speech, the right of independent thought, the right of dissent, without danger of being cast into the gloomy framework of treachery or evil intentions.

Academic freedom cannot be preserved by academicians making speeches to one another, nor by exhortation in annual meetings. It must be maintained by the will of the American people who trust their universities as the citizens of this republic have always trusted, and relied upon, education as a basic tenet of our American culture.

These professors of ours must have the right to profess their disciplines and their beliefs; to pronounce postulates which have not attained common acceptance; to know that their administrations stand behind them in their dissent and in orthodoxy.

In this alone, perhaps, lies the greatest assurance of the vigor, and the numbers as well, of the teaching profession in the 1960's.

LOOKING FORWARD

Tax Saving for Annuitants

THE TEACHERS INSURANCE AND ANNUITY ASSOCIATION of America (T.I.A.A.) has recently released a bulletin to college business officers that merits careful study. It calls attention to the fact that the Internal Revenue Code of 1954 offers a tax saving during retirement to persons included in annuity plans of publicly supported institutions prior to 1939, regardless of where they are employed subsequently.

The T.I.A.A. bulletin states that "under retirement annuity plans, the annuitant's investment in the contract is ordinarily the total of premiums paid by him to the contract. Section 72(f) of the Internal Revenue Code of 1954 further provides, however, that employer contributions may also be included in the investment in the contract if at the time such contributions were made they would not have been taxable income if paid directly to the employe. Prior to 1939 the salaries of state or municipal employes were exempt from federal income tax. Thus a person who was covered by the T.I.A.A. plan at a publicly supported university prior to 1939 may include in the 'investment' for his annuity the amount of premiums paid by the university during that period."

In computing taxable income, the more an annuitant can properly include as part of his "investment in the contract" the less he will have to report as taxable income each year, T.I.A.A. states.

The business officer should check with former faculty and staff members, now retired, to see whether they will be eligible for the benefits provided by Section 72(f) of the Internal Revenue Code of 1954.

Legion Foolishness

AMERICAN LEGION CONVENTIONS HAVE NEVER SET any records for sobriety, though the advancing age of legionnaires has served as a moderating influence in hotel vandalism.

For years the Legion has considered itself a self-appointed guardian of American liberty and freedom. This sometimes takes it far afield, with the result that the girl scout handbook becomes a subversive document and UNESCO is a sinister organization. The action of the American Legion convention in Miami in condemning UNESCO is symptomatic of an anti-education trend that has become evident in Legion circles in recent years. It was ironic that the resolution for UNESCO condemnation was initiated by legionnaires from Illinois, the "land of Lincoln." The Civil War president would have been appalled at such evidence of bigotry.

The UNESCO resolution at Miami seems to be another example of Legion foolishness. It is hoped that the American public will regard it as such.

The 60 College Study

WITHIN RECENT WEEKS, EVERY COLLEGE PRESIDENT and business officer has received a copy of the summary report of the study of income and expenditures in 60 colleges made under the auspices of the National Federation of College and University Business Officers Associations.

In planning this study, the federation adopted as its aims the following statement:

"To provide a detailed analysis of fiscal operations on a uniform basis to such a degree that a meaningful comparison can be made between institutions of higher education. To accomplish this purpose, it is recommended that a uniform account classification be developed and accounting technics be established. The technics to be established herein are to be published and made available to institutions of higher education for guidance in their fiscal operations."

The principle of uniform accounting procedures for colleges has been generally accepted since 1935 when the National Committee on Standard Reports for Institutions of Higher Education published its study under the title "Financial Reports for Colleges and Universities." Though the principles were generally recognized, compliance came less readily. The 60 College Study was the first organized attempt to achieve uniformity in accounting procedures.

Though complete accounting uniformity does not exist in the 60 College Study, it does represent a significant effort to develop data that have comparative value. If colleges are planning to interpret their financial needs to the public for purposes of obtaining support, it would be well for data to be set up in such a way that they can be readily compared with those of other colleges.

As donors consider educational needs, they will be more impressed with institutions that have made a thorough analysis of their income and expenditures as compared to college organizations that just rock along in the same old way.

Good advice: Become familiar with the 60 College Study of Income and Expenditures. See how it applies to your college.

The Administrator Reconsidered

ROBERT M. HUTCHINS
President
The Fund for the Republic

I HAVE SPENT 33 YEARS IN THE ADministration of corporations not for profit. Seven years ago, at the University of Chicago, I gave a lecture on the administrator,* and I now propose to bring that statement up to date and to offer some amendments to it. I should first like to reconsider my experience at the University of Chicago; then I should like to make some observations on the relatively new field of foundation administration, and finally I should like to refer to the problems that have arisen to plague the administrator since the date of the Chicago lecture.

That lecture suggested that what the administrator needed was the moral virtues and a vision of the end. I said that he had to have courage, fortitude, justice, and prudence or practical wisdom. I went on: "I do not include patience, which we are told, President Eliot came to look upon as the chief requirement of an administrator. . . . I regard patience as a delusion and a snare and think that administrators have far too much of it rather than too little."

MR. ELIOT WAS RIGHT

I have to confess that I now believe that Mr. Eliot was right, and I was wrong. I now think that my lack of patience was one of my principal disqualifications as an administrator.

I did not want to be an officeholder. I wanted, as the saying goes, "to get things done." This led me to push matters to a decision, sometimes by very close votes. One highly important resolution in the faculty was defeated by a tie. Under the rules of order I was permitted to vote, as the vote was by ballot. It turned out that the tying ballot was cast by me. Representations were made from the floor that a decision on a central educational issue should not be reached by an evenly divided faculty. These representations I ignored; I had the votes I needed.

It is one thing to get things done. It is another to make them last. I was interested in effecting permanent improvements in American education, not in keeping the University of Chicago in an uproar. I should have known that the existence of a large embittered minority, which felt that fundamental alterations had been pushed through without consideration of its point of view, destined the alterations to endure only until the minority could muster the strength to become the majority. The example of the College of Cardinals, which, I understand, never does anything unless the vote is unanimous, and of the Quakers, who continue their discussion until consensus is reached, suggests the procedure that makes durability likely.

I followed this counsel of patience with the administrative group, a gathering of 23 that met every two weeks. We never did anything without unanimous agreement. In one case, when it was decided that members of the faculty should receive decent salaries—a revolutionary conclusion—and turn their outside earnings over to the university, there were, as I remember it, 16 long meetings before all objections were answered and all amendments disposed of one way or another.

I believe I should have done the same thing with the faculty representatives, who, under the constitution of the University of Chicago, have final power over all educational changes. If I had, I would have got fewer things done, but they might have lasted longer. Of course, I might not have lasted as long as I have—I might have died long since.

As I said seven years ago, "The problem of time . . . is insoluble. The administrator should never do anything he does not have to do, because the things he will have to do are so numerous that he cannot possibly have time to do them. He should never do today what he can put off till tomorrow. He should never do anything he can get anybody to do for him. He should have the largest number of good associates he can find, for they may be able to substitute for him. But he should be under no illusions here. The better his associates are, the more things they will find for him to do."

The pressure of time is so great, the number of people who have to be convinced is so large, interminable discussion of the same subject with the same people is so boring, that the amount of patience a university administrator must have passes the bounds of my imagination, to say nothing of those of my temperament. But I have learned at last, or I think I have, that the university president who wants durable action, not just action, must have patience, and have it in this amount.

IF I HAD IT TO DO OVER AGAIN

Considerations such as these lead me to think that if I had it to do over again I might have begun at Chicago in 1929 with a proposal for the reorganization of the university more basic than any I ever advanced. I now believe that the existing structure is impossible; the administrative job cannot be performed. I also believe that the departmental system, even when mitigated by large groupings like those at Chicago, tends to self-defeating excesses in specialization, self-defeating in the sense that the specialist who knows nothing outside his specialty eventually cannot succeed even in it. He becomes immune to ideas that might illuminate his labors. He cannot talk to those outside his specialty, because they cannot understand him.

Chicago did take an important step, perhaps the most important that can be taken, when it established "the college" and insisted that the student could not specialize until he had had

From an address given before American College of Hospital Administrators, Atlantic City, N.J., September 1955.

*Published in College and University Business, January 1949.

Robert M. Hutchins as the 30 year old president of the University of Chicago.

some taste of liberal education. This was intended to enable him to communicate later on with persons who had different specialized education training from his own, and it was even hoped that the liberal education he received in "the college" would induce him to continue indefinitely an intellectual life outside his specialty.

The impossible size of American universities and the lamentable extremes to which specialization has been carried lead me to believe that I should have proposed the reorganization of the University of Chicago on the lines of Oxford and Cambridge. The university should have been reconstituted into a federation of colleges, each representing among its students and teachers the major fields of learning. These colleges should have begun their work with the junior year, resting on the foundation of "the college of the university," which terminated its work at the end of the sophomore year. That college was intended to be the equivalent of the humanistic *gymnasium* or the *lycée* or the British public school. The change would have meant that basic liberal education would have been followed by compulsory communication with the representatives of disciplines other than one's own throughout the whole educational process, and, in the case of teachers, throughout their lives.

COLLEGES OF MANAGEABLE SIZE

Such colleges as these I should have proposed—say with 250 students and 25 faculty members—would be of manageable size. Each one could have an administrative officer who could be expected to lead the way to improvements both numerous and lasting. The university as a whole would have no permanent, full-time head. The ceremonial, representative functions of the university president could be performed by a temporary official.

The only objection I can think of to this proposal is that there would be no president to raise money for the university.

The adoption of the Oxford and Cambridge organization might suggest to the American universities the advantage of one or two other aspects of higher education in the United Kingdom. The abolition of the credit system and the substitution of a program of external examinations would do more than any other single thing to make American universities into educational institutions. The reduction of the periods of formal instruction to 24 weeks a year, on which the Chicago faculty defeated me by an overwhelming vote—it was as though they had voted to refuse a salary increase of 25 per cent—would give impetus to research, prolong the lives of teachers, and throw the responsibility of education where it belongs, upon the students.

But this is by the way. The main point is that administration by persuasion and agreement, which is the only kind that brings lasting results, cannot be conducted in the vast chaos of the American university, and that the remedy for it, federalization, would also remedy that mutual deafness which specialization has made the characteristic disease of the higher learning in America.

With these important reservations and alterations, I am ready to stand on my lecture of seven years ago about the administration of universities. What about the administration of foundations, in which I have now spent almost five years? At first glance they seem like paradise for the university administrator. Foundations have no faculty, no students, no alumni, and no football team. The president of a foundation does not have to spend all his waking hours plotting how he can raise money. The Lord Chancellor of Gilbert and Sullivan said, "In my court I sit all day, giving agreeable girls away." Substitute millions for girls and you have the life of a foundation executive as it seems to a university president who has never been a foundation executive.

When one is a foundation executive one begins to appreciate certain things about universities that are not always in one's ungrateful mind when one is administering a university. The academic tradition is so attenuated in this country that the administrator of an academic institution is likely to feel that it does not exist. His preoccupation with his trustees is likely to be such that he does not notice the functioning in the university of what John K. Galbraith has called "countervailing power."

In a foundation, where there is no tradition yet and where there is no countervailing power, the administrator may recall with some nostalgia that the academic tradition did to some extent protect the academic enterprise and that the tension among administration, faculty, trustees, students, alumni, donors and the public did have a tendency to keep any group from totally destroying the independence of the academic body.

OUR COLLEGES "FOLK INSTITUTIONS"

It is true that the academic body has been in serious danger of losing its independence. The reason is that nobody can understand why it should have it. And the reason why nobody can understand this is that the colleges and universities of this country have, in their desire for popularity and money, gladly responded to every pressure and every demand. They have insisted on their dependence; they have become folk institutions, reflecting the whims, no matter how frivolous or temporary, of those whose support they hope to gain.

Where the academic tradition is stronger than it is in the United States and where it is well understood by the population, it is effective, even in restricting the use of the powers that trustees and ministers of education could legally exert. In England, Scandinavia and Holland, for example, the legal powers of political officers and lay trustees, which equal those of their American counterparts, are never exerted in academic matters.

Weak as the academic tradition is in America, it does exist. But there is not and never has been any tradition that suggests what is proper or improper in the management of organized philanthropy. Formal restraints are imposed on the trustees of foundations by law, but the law is far from clear. Moreover, though the law may point out what you should not do, it does not purport to tell you what you should do.

We know that a foundation cannot retain its exemption from taxation if it finances the campaign of a candidate for the Senate. The law does

not tell us whether the best use of a foundation's money is to finance, for example, a study of the way in which bees tell distance, though we do know that such a grant, if made to a university rather than a private beekeeper, is not likely to endanger the tax exemption of the foundation.

Let me take an example that shows that not even the rudiments of a tradition about foundations yet exist. It might have been supposed that the foundations would be regarded as the finest flower of free enterprise. The policy of the country has been to encourage people to finance religious, charitable, educational and scientific endeavor through private contributions rather than through taxes. This policy appears in the steadily expanding provisions for exempting these contributions from taxation. In some countries such exemptions are difficult, if not impossible, to obtain. We rightly regard this result as reflecting the socialistic leanings of those countries. They want the state in charge of everything.

RIGHT-WING CRITICS

Yet critics of the foundations in this country, who represent the extreme right wing of American politics, and who are constantly in full cry against all efforts to extend the scope of governmental action, have repeated over and over again, with the evident intention of getting it accepted as an axiom, the proposition that tax exempt money is "your" money. This means that detailed governmental supervision of the foundations is necessary: The government must see to it that your money is properly spent.

If this proposition is correct, it would seem to apply to all tax exempt institutions. If a congressional committee may follow every foundation grant and analyze the thoughts of the recipient, then congressional committees may follow "your" money when it supports preachers and teachers and seek to analyze (and control) their thoughts, too.

The Reece committee, the last which investigated foundations, listed as subversive those who did not share its philosophical prejudices. It condemned empiricism, which on its face seems to be a harmless preference for fact over theory, as the fountainhead of the subversive tendencies in this country. If a philosophical position can be treasonable, and if the majority of a congressional committee can make it so, then freedom of teaching, preaching, discussion and thought may not be with us long.

It has hitherto been thought that tax exemption was conferred for the purpose of facilitating the performance of public tasks by private agencies. For example, a corporation that carries on education and research to that extent relieves the taxpayers of their obligation to finance such work by taxes. Tax exemption can impose no duty on colleges and universities except that of conducting teaching and research according to their best judgment of what good teaching and research are. It cannot impose the duty of making sure that the teaching and research conform to the views of a majority of a legislative committee.

The powers of Congress to decide on the class of corporations that may be exempt from taxation are undoubted. An attempt by that body, or any other governmental agency, to go beyond the determination that a corporation is engaged in bona fide charitable, religious, educational or scientific work and to decide that it ought to engage in or finance only such preaching, teaching and investigation as the government may from time to time approve clearly violates the long established policy of this country and in my opinion violates the First Amendment as well.

In my Chicago lecture I said, "The temptation, of course, is to bury yourself in routine. There is so much routine—so many reports, so many meetings, so many signatures, so many people to see—all of some value to the institution, that you can conscientiously take your salary and never administer at all. You can spend your entire time doing things which any $30 a week clerk could do better and go home at night exhausted to report to your wife that you have had a hard day wrestling with university problems. The administrator who is determined to administer will find the strain on his character very great."

TEMPTATION TO FRITTER

In foundation work the refuge of the administrator is frittering, rather than routine, though there is plenty of that, too. The administrator of a foundation has to have a vision of the end, and, in the light of it, has to decide what expenditure is most likely to achieve it. He must decide that for the purposes of his foundation A is better than B, that X University is better than Y University, and he must do this even though B is more influential than A and Y more celebrated than X. The temptation here, of course, is to fritter, to recommend that both A and B, both X and Y, receive some money and thus to get the best of both worlds by combining popularity and effectiveness.

Robert M. Hutchins, president of the Fund for the Republic, New York City.

Most foundations, unlike the Fund for the Republic, have very general purposes, such as the welfare of mankind. The decision as to what expenditures will promote the real welfare of mankind is so difficult, it involves such a tremendous intellectual effort, which at best can result only in a guess, that a natural desire is to give nearly everybody something for nearly everything in the hope that some interesting entries will emerge for the annual report.

But this formula will not protect you today if you give something, no matter how little, to somebody who is unpopular, or if you give it for an unpopular cause. And so I come to the third and last main division of these remarks. What has happened to the administration of corporations not-for-profit in the last few years?

In the Chicago lecture I said, "The administrator who is afraid of anybody or anything is lost. The administrator who cannot stand criticism, including slander and libel, is lost." This is still true. I went on: "The natural course, then, is to become an officeholder." But even being an officeholder will not protect you now. The great change that has taken place in recent years is a change in the atmosphere in which the administrator has had to operate. It is an atmosphere of suspicion and fear.

Since the clouds of suspicion and fear have been rolling in along with rising costs, those corporations not-

for-profit which have to raise money, as all colleges and universities think they must, have felt constrained to propitiate those forces which have generated fear and suspicion or those persons and groups who have been influenced by it. Those corporations not-for-profit which do not have to raise money, like the foundations, have felt constrained to merge innocuously into the environment by veering off from any activity or from any association that could be criticized.

When the national commander of the American Legion can call upon his comrades, of whom I am one, not to have anything to do with the Fund for the Republic, you can see what occupational hazards are connected with being an officer of a foundation. But then, Senator McCarthy called Harvard a "smelly mess," so perhaps I am no worse off now than when I was a university president.

Think what has happened of late to the great American principle that a man is to be judged by what he does, not by what he thinks, not even by what he says, certainly not by what his relatives think or say or even by what they do, surely not by what his acquaintances or acquaintances of his acquaintances think, say or do. Since the country is full of organizations to which many people belong who have little understanding of what is actually going on in the organizations, it was long thought that mere membership in an unpopular organization did not necessarily show that an individual member subscribed to all the views to which other members subscribed.

AN ILL WIND

The Supreme Court, producing five opinions in a 6 to 2 decision, has held that the First Amendment does not prevent Congress from narrowing the traditional limits of freedom of speech. The loyalty-security program of the government and the attorney general's list have been used to debar persons from public and private employment against whom nothing worse could be said than that they had associated with their mothers. Though the Fifth Amendment is simply another way of saying that the prosecution must prove its case by gathering evidence to sustain it, the use of this amendment by one whose political views are in question is regarded as irrefutable justification of the charge.

What has happened to the great American principle that the chief qualification for a job is the ability to perform it? In almost no case that I can think of, from the Hollywood Ten to the teachers recently suspended in New York, has it been suggested that the alleged political views of the individual had any effect upon his work. The question of competence is never raised.

Now the object of universities, hospitals and foundations is not the preservation of the status quo. It is the improvement of the conditions of human life and the clarification of its aims. A university that does not try to improve the educational system and the environment in which it operates, a hospital that does not try to improve medical practice, a foundation that is not dedicated to the welfare of man is a failure. Yet universities, hospitals and foundations that do these things must inevitably engage in criticism of existing practices, and if they do they must expect to be criticized in turn.

HOW TO BECOME CONTROVERSIAL

How do you become controversial? By being attacked, and it makes no difference how innocent you are or how silly, stupid or irresponsible the attack may be. It will be remembered that Bishop Oxnam was refused permission to speak in the Philharmonic Auditorium in Los Angeles after he had been "cleared," as the saying goes, by the House un-American activities committee. The principal attack upon the American Civil Liberties committee was delivered by the most disreputable of the various state un-American activities committees, the Tenney committee of California.

Now the winds are shifting. The demise of Senator McCarthy, the bipartisan vote for a commission to look into the loyalty-security programs, the apologies distributed by various agencies of the government to persons wronged by mistake or by frivolous or perjured testimony, the judicial decisions and the changes in regulations affecting passports, the improvement of the procedure of congressional investigations—all these things may encourage those who believe that we do not have to jettison our liberties in order to protect them.

Mr. Truman would have been impeached if he had proposed that the Russians fly over our country and photograph our military installations. He had a bad time because he once said that he liked Old Joe; but his successor can correspond with Zhukov, and the vice president feels free to say that one of the most important results of the Geneva conference was the establishment of friendly personal relations between the Russian leaders and the President of the United States. As the wind blows today, those who believe that universities are centers of independent thought and that foundations are accumulations of venture capital dedicated to pioneering are doing fairly well. But irremediable harm was done to these conceptions in the last wind, because the timidity that it created lingers on.

THE NEXT WIND

And what about the next wind? The administrator ought to have a vision of the end that is clear and true regardless of meteorological conditions.

It is not merely inevitable that we are different and have different views; it is desirable that this should be so. From the clash of opinion truth emerges, and the human race advances.

Hence the essence of Americanism is discussion. It is not name calling or suppression. It is certainly not dogma or prejudice. The only political dogma in America is that discussion is the road to progress, that every man is entitled to his own opinions, and that we have to learn to live with those whose opinions differ from our own. After all, they may turn out to be right.

The administrator must have a clear, true vision of the end, and he must have courage, fortitude, justice, prudence and patience in order to pursue it through all kinds of weather. The administrator who instead of pursuing the end pursues public relations may make himself and his institution rich and popular. Public relations means trying to find out what the prevailing opinion is before you act and then acting in accordance with it.

The tendency of the pursuit of public relations is to make everybody think, look, talk and act like everybody else: How can anybody criticize you if you are like everybody else? The pursuit of popularity brings the kind of success that turns to dust and ashes in the administrator's mouth; it means that he and his institution have failed in reality, because the end has got lost, and so they have not done for their fellowmen what they were intended to do. The moral virtues and the vision of the end—these are still what the administrator needs; he needs them now as never before.

Convincing the budget officer or administrator of the necessity for

A Reasonable Maintenance Budget

HERBERT C. O'NEIL

Superintendent of Buildings and Grounds, University of Oklahoma School of Medicine and University Hospitals

ORGANIZATION AND BUDGET ALLOCATION problems of the plant department are similar for all institutions. The organization becomes larger and more departmentalized as the institution becomes larger, but the problems are basically the same. The physical plant budget must provide for the services necessary to maintain the buildings, furniture, equipment, grounds and utilities in support of the educational program.

TABLE 1—PHYSICAL PLANT BUDGET

University of Oklahoma School of Medicine and University Hospitals

1.	Administration and engineering	$ 22,700	5.6%
2.	Building maintenance	115,221	28.6%
3.	Furniture and equipment maintenance	42,700	10.6%
4.	Landscape and grounds	18,360	4.6%
5.	Power and utilities	120,720	30.0%
6.	Security	10,670	2.6%
7.	Communications	56,030	13.9%
8.	Inventory and receiving	16,475	4.1%
	TOTAL BUDGET	$402,876	100.0%

In order to discuss the building maintenance item, we give in Table 1 a physical plant budget for the University of Oklahoma School of Medicine and University Hospitals. Our institution is of medium size, and our budget requests are adequate to carry on our service responsibilities. Please remember that the titles or groupings will vary with each organization, but the important thing is that all the functions or activities of the physical plant department are indicated.

Items 1, 6, 7 and 8 in Table 1 do not present a serious problem in estimating the amount required, since these items cover organizational personnel, known equipment, and supplies. The adjustment changes in salary and cost of equipment and supplies are easily determined and can be justified in every respect.

Item 5, power and utilities, includes steam, water, electric power, gas and sewerage. The budget allocation will vary greatly, depending on how the lines were originally installed. Overhead lines will cost a great deal more for maintenance than underground lines cost. Steam, water and power lines located in tunnels large enough to permit mechanics to work there will greatly reduce maintenance costs. Costs usually are based on the length and size of lines and may be obtained from the experience records. The cost of utilities can easily be determined by referring to the cost records from previous years.

The landscape and grounds budget includes such items as grounds, sidewalks, parking areas, and collection and disposal of wastes. This does not present a serious problem, because again it covers organizational personnel, known equipment, and unit cost figures based on experience.

The budget allocation for furniture and equipment should be a percentage of the replacement cost of the furniture and equipment. At the University of Oklahoma School of Medicine and University Hospitals, we define furniture and equipment as being general equipment with reference to patients' rooms, visiting rooms, and lobbies. It includes such items as patients' beds, patients' chairs, screens, stands, venetian blinds, chair covers, floor coverings, and lamps. It also includes institutional equipment such as chairs and desks. The furniture and equipment budget of the physical plant department does not include departmental equipment.

This leaves to be justified Item 2, building maintenance, which, in our case, is $115,221.

I am sure that others faced with the problem of preparing a building maintenance budget have experienced difficulty in convincing the budget officer or the administrator of the necessity for a reasonable budget. The budget officer readily can see that if a man is hired at $200 a month, $200 times 12 is $2400 a year, and that that amount must be set up and encumbered for the entire year.

It is entirely different with the building maintenance budget. Some scheme must be developed whereby this budget can be reasonably explained and justified to the budget officer. In some instances, the allocation is based on the amount allocated the previous year; to this figure there is an additional deduction depending on how much or how little is left to be allocated.

The problem of determining the amount required for building maintenance does not at first seem difficult. We who are responsible for keeping the buildings in good condition can prepare a budget which to us seems conservative but to the officials who must decide on the amount to be allocated our estimate may seem large. It is evident that if enough money is to be allocated for building maintenance, it will be necessary to present the need for it in some particular way.

The National Association of Physical Plant Administrators of Universities and Colleges has endeavored to solve the problem by presenting a

From a paper presented at the Hospital Engineering and Maintenance Institute, Toronto, Canada, April 1955.

TABLE 2—BUILDING COST INDEX NUMBERS

YEAR	Wood Frame Construction	Masonry, Wood, Brick Veneer	Masonry, Concrete, Reinforced Steel
1910.....	50.2	53.3	57.0
1915.....	51.9	55.2	61.0
1920.....	118.8	120.0	121.8
1925.....	99.1	101.9	101.0
1927.....	95.1	100.0	99.3
1930.....	94.3	97.9	96.9
1935.....	84.6	86.8	89.2
1940.....	99.6	100.4	105.5
1945.....	145.5	139.1	131.9
1950.....	226.1	217.4	207.6
1954.....	247.6	243.1	239.9

system of calculations. Walter Kraft, director of the physical plant at the University of Oklahoma, worked out a system in 1949, and this system has been adopted by the national association. It is the system presented here.

What is meant by building maintenance? Building maintenance includes minor alterations, repair of buildings, cost of materials, hire of personnel, and other expenses necessary for the repair of roofing, painting, masonry walls, foundations, flooring, partitions, doors, windows, plaster, structural iron work, screens, window shades, venetian blinds, plumbing, heating, air conditioning, electric wiring, light fixtures, fluorescent lamp replacement, and other related items. It does not include janitor work, maid service, cost of utilities, adjoining sidewalk repair, care of lawns and shrubbery, repair of movable furniture, general kitchen equipment, departmental equipment, or maintenance of special utility service to such departmental equipment.

The responsibilities of the entire department are greater than the sum of the items listed, but building maintenance is defined here to justify the amount of the allocation. Several methods have been used to determine the amount required for building maintenance. One of the systems under consideration is the square foot method; another is the cubic foot method, and the other, the replacement cost method.

The method I present here is based strictly on the replacement cost of the buildings involved. Since building maintenance costs and building replacement costs vary in nearly direct proportion, the maintenance cost may be estimated by taking a percentage of the current building replacement cost. The design or function of the building is reflected in the original cost; that is, if the building is a dormitory, a children's hospital, a medical school, or a laundry, its maintenance has a direct relation to its replacement cost. It is a logical step to base the building maintenance budget on the replacement cost of the building.

The information about the building necessary to set up this type of system is the year built, original cost, type of building, year and cost of additions, volume, floor area, interior wall area, interior ceiling areas. This information may be taken from a set of blueprints, which is a "must" for any engineering department.

Certain other facts that will need to be gathered are the results of annual inspections on each building to determine what repairs are needed, and a record of annual building maintenance costs. This may be done by assigning account numbers to each building and developing a system of work orders designed to classify the work, and by indicating whether the charge is a building maintenance charge.

In order to calculate building maintenance cost based on a percentage of the replacement cost, it is first necessary to establish the replacement cost of all the buildings under consideration. This system is merely the process of fixing the present-day value on all the buildings. In other words, if a building was built in 1928 for $100,000, then the same building constructed today will cost a certain amount in excess of $100,000. This may be accomplished by referring to the record of building costs in the area in which the institution is located.

Such records may be available from regional offices of building construction associations or from records compiled by building trades offices. If this is not readily obtainable, a survey of building costs in the area and for the period required may be obtained from competent engineering offices organized to render such services. The construction cost index is a record of the average construction costs for a given year, during a given year, and classified as to the structural type and general use. The compilation of building cost averages over the number of years is referred to as "Construction Index Numbers." In order that comparative figures may be had, some year's prices were taken as 100, and all other figures are given in a per centage of the base period cost.

In Table 2 is a record of building cost index numbers in the Oklahoma City area, shown here from 1910 through 1954. Classifications are divided into three different groups. By use of the building cost index numbers,

TABLE 3—METHOD OF CALCULATING PRESENT REPLACEMENT COSTS OF BUILDINGS

Building A

Date constructed	1918
Cost of construction	$300,000
Classification	Type 3, reinforced concrete
Index number, year built	89.8
Index number, 1954	239.9
Differential factor	239.9 = 2.67
	89.9
Replacement Cost	$300,000 x 2.67 = $801,000

Building B

Date constructed	1951
Construction cost	$1,345,595
Classification	Type 3, reinforced concrete
Index number, year built	225.8
Index number, 1954	239.9
Differential factor	239.9 = 1.06
	225.8
Replacement cost	$1,345,595 x 1.06 = $1,426,330

Building C

Date constructed	1929
Cost of construction	$58,436
Classification	Type 2, masonry walls, wood frame
Index number, year built	100.9
Index number, 1954	243.1
Differential factor	243.1 = 2.41
	100.9
Replacement cost	$58,436 x 2.41 = $140,831

TABLE 4—BUILDING MAINTENANCE BUDGET 1955-56

Building	Year Built	Cost	Index Year Built	Index 1954	Differential Factor	Replacement Cost	Maint. Cost Factor	Building Maint.	Adj. Use Factor	Adj. Budget
Main Hospital	1918	$300,000	89.8	239.9	2.67	$801,000	1.10%	$8,811	+50	$13,216
Main Hospital Adm. Addition	1921	110,331	97.6	239.9	2.46	271,424	1.10%	2,986	+10	3,285
Main Hospital Addition	1937	16,120	96.2	239.9	2.48	40,000	1.10%	440	....	440
Main Hospital S. Ward	1944	114,963	124.9	239.9	1.92	220,729	1.10%	2,428	+50	3,642
Clinic Building	1951	1,345,595	225.8	239.9	1.06	1,426,330	1.10%	15,689	−10	14,120
Children's Hospital	1928	413,968	99.0	239.9	2.42	1,101,802	1.10%	12,120	+50	18,180
Children's Hospital Addition	1951	600,697	225.8	239.9	1.06	636,739	1.10%	7,004	−10	6,304
Children's School	1928	37,229	99.0	239.9	2.42	90,094	1.10%	991	....	991
School of Nursing	1947	478,723	167.9	239.9	1.43	684,574	1.10%	7,530	+10	8,283
Laundry	1923	25,000	102.4	239.9	2.34	58,500	1.10%	644	+20	773
Caretaker's Residence	1937	1,831	90.2	247.6	2.75	5,000	1.75%	88	+20	106
Polio East	1949	47,000	219.9	247.6	1.13	53,110	1.75%	930	....	930
Polio West	1949	47,000	219.9	247.6	1.13	53,110	1.75%	930	....	930
Shops	1950	58,436	207.6	239.9	1.16	67,786	1.10%	746	+10	821
Boiler Plant	1948	198,728	193.6	239.9	1.24	246,423	1.50%	3,696	+20	4,435
Staff Quarters	1921	51,000	97.6	239.9	2.46	125,460	1.10%	1,380	+10	1,518

the replacement cost of the buildings may be calculated by determining the differential factor. This is done by dividing the 1954 index number by the index number for the year in which the building was constructed, the index number in the proper classification column being used. The result is the differential factor which, when multiplied by the original cost, will give the 1954 replacement cost; and then, of course, if additions have been built to the building, these must be calculated separately and added to the 1954 replacement cost.

The examples in Table 3 illustrate the method of calculating the replacement cost of the buildings in the several classifications. Building "A" was constructed in 1918 for the sum of $300,000. The index in 1918 was 89.9; the index in 1954 is 239.9. We arrive at a differential factor of 2.67; then we have to multiply the original cost by 2.67 in order to get $801,000 as the replacement cost of the building.

The amount to be allocated for building maintenance for any group of buildings may be determined by applying a maintenance cost factor to the total replacement cost for each classification. The maintenance cost factor is a percentage of the present replacement cost. The percentage used for each building classification is the approximate average of our experience over a period of years. The factor varies for the three building classifications as the cost per cubic foot for the three types of building varies, being higher for the third than for the second, and higher for the second than for the first.

The Association of Physical Plant Administrators has, through its experience, established that classification Type 1 is 1.75 per cent per year, based on the replacement cost; Type 2 is 1.3 per cent, and Type 3 is 1.1 per cent. By applying this maintenance cost factor to the replacement cost of the building, the result will be the amount required for the annual building maintenance budget.

ADJUSTED USE FACTOR

In preparing our annual budget, we have found that it is advisable to allow a column called "Adjusted Use Factor." This adjusted use factor was developed by the association to take care of the greatly increased enrollments that developed as a result of the war years; some buildings are being used up to 50 per cent more than was originally intended. Also, some university hospitals have closed down various wards for various reasons. Thus, it is necessary to have an "Experience Column." New buildings for the first three or four years require much below normal maintenance. Universities and colleges generally occupy their buildings only eight hours a day, nine months out of the year. When this system is to be used by a university hospital, for example, the adjusted use column is important because a hospital operates 24 hours a day, every day of the year. Therefore, some means must be made to make this column suited to our use in the building maintenance budget. In order for our budget to be adjusted to suit our needs, we increase or decrease our normal budget allowance for each of the buildings affected. Such adjustment is based on the estimated percentage of the normal building maintenance cost.

Table 4 is the result of the procedure for building maintenance based on the annual replacement cost. In order to illustrate the subject I have listed only 16 of our 27 buildings. We notice the main hospital building was built in 1918 for $300,000, and the cost index for the year in which it was built is 89.8. The cost index for 1954 is 239.9, and, as illustrated previously, the differential factor is obtained by dividing the index year built into the present index, or 2.67. The replacement cost is developed by dividing the differential factor by the original cost. Here the maintenance cost factor for a Type 3 building is 1.1 per cent, which allows a building maintenance budget of $8811. In the adjusted use column we find that this building, which was built in 1918, has had an inadequate budget since the building was occupied. Therefore, we believe that we should adjust this figure by half again as much in order to take care of the depleted condition of the building. Although this statement of our experience might convey the impression that there is a great deal of work involved in making the computations, it requires comparatively little more time than any other method requires.

When the building maintenance budget is presented in this form, the budget officer, the administrator, or the board of control—whoever the person or persons are who determine how much is to be spent—can readily see that any deductions from the building maintenance budget will affect the appearance, condition and efficiency of the building, and the maintenance program. Then, it is merely to be determined if the budget is to be reduced, the maintenance on which building should be reduced. In other words, where is the area of inefficiency, or where is the area of deterioration?

Crowds Take Careful Handling

C. W. DeMENT
Safety Engineer, Purdue University, Lafayette, Ind.

Directing traffic

ANY ORGANIZATION THAT SPONSORS athletic contests, convocations, lectures, plays or any other event that attracts a crowd must consider its responsibility for the personal safety of individuals who make up the crowd.

In connection with safety in the management of crowds, there are three separate time phases:

1. Preparing for the crowd.
2. While the crowd gathers.
3. While the event is in progress.

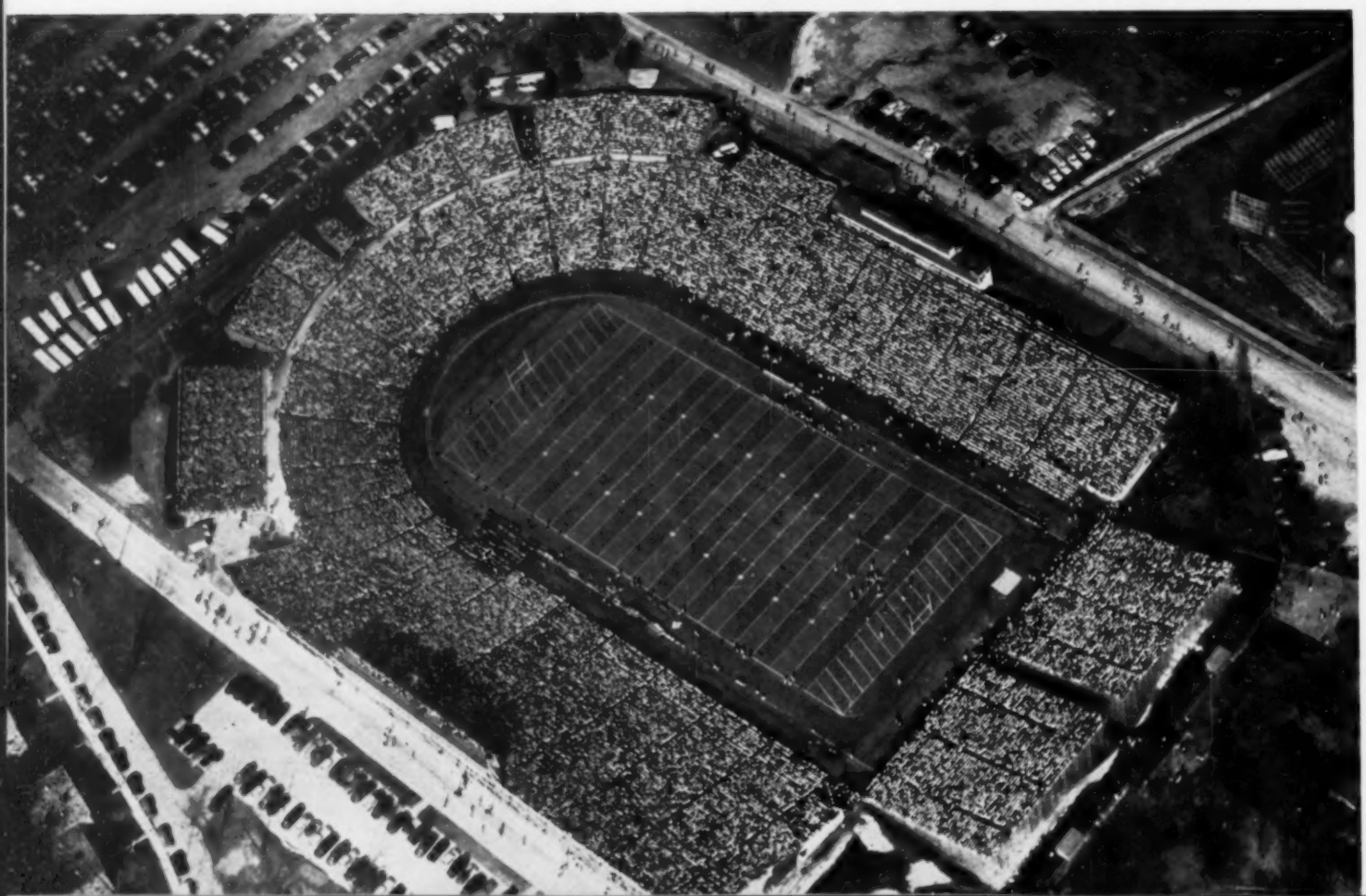
PREPARING FOR THE CROWD

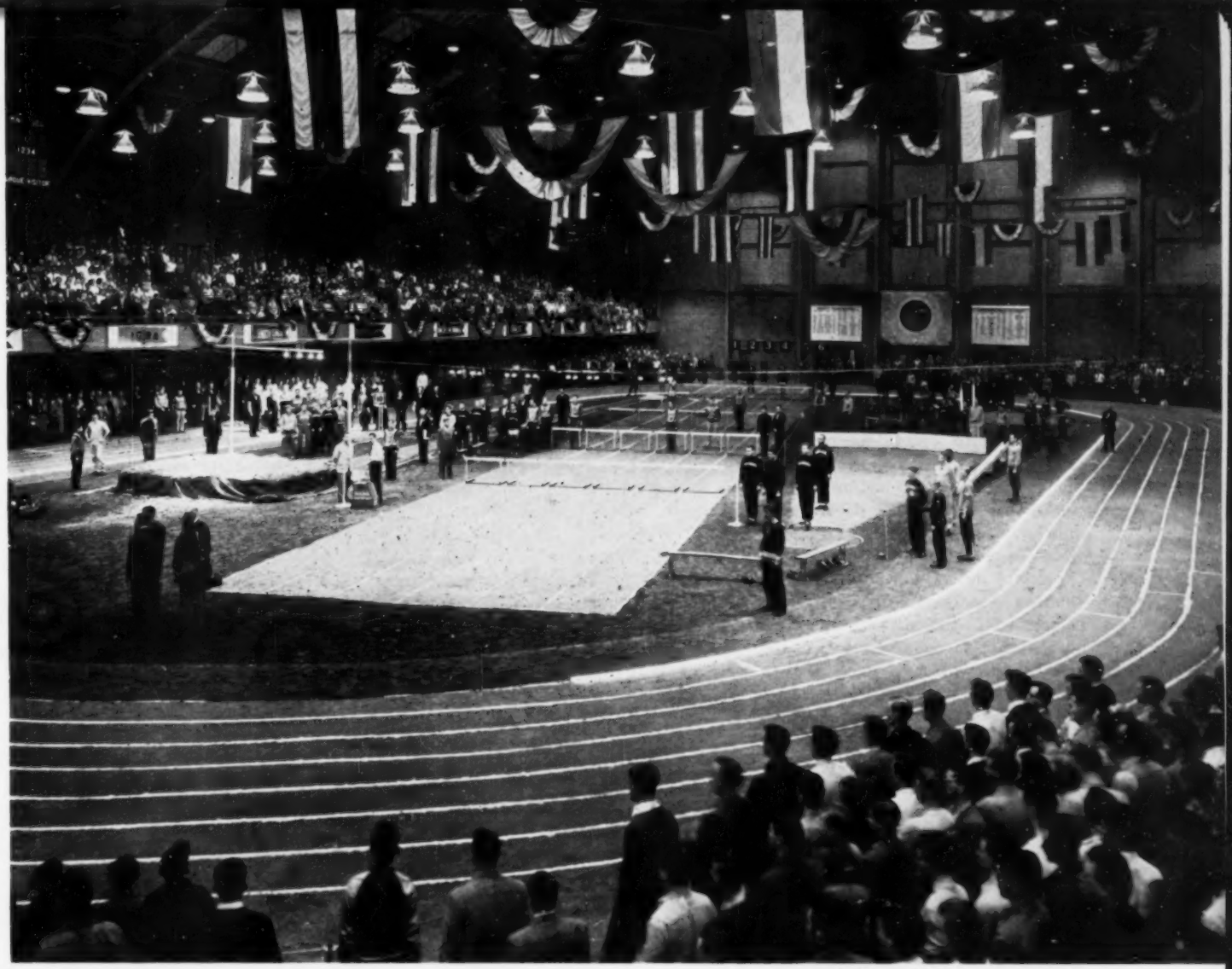
The first of these phases is perhaps the most important. It includes removal of physical hazards from the place of assembly and all of the planning for handling the crowd. Where possible, the first phase — preparing for the crowd—should start on the drawing board when a new stadium, music hall, or other place of public assembly is being designed. Most of us, however, must operate with a physical plant that is already complete so I will assume that we are operating such a plant.

Several days or perhaps weeks before the crowd gathers, a complete safety inspection should be made of the premises. This is particularly true of an area that is used on a seasonal basis, such as a football stadium.

Inspection of the stadium should include a check of bleachers and permanent stands to discover structural weaknesses, split or broken seat boards, defective electrical equipment, condition of exit facilities, walking

Football crowd at Ross-Ade Stadium, Purdue University





Indoor crowd at Purdue relays

surfaces, fire equipment, fencing around the area, approaches to entrances and exits, concession stands, and first-aid stations. Of course, any hazard discovered in this inspection should be corrected before the crowd arrives, and equipment removed after the previous season should be replaced.

In particular, it is important that the enclosure around a football stadium be tight enough, high enough, and well enough patrolled so that there is no temptation for people to try to "sneak in." Last year while the crowd gathered at a Purdue football game, we discovered some boys try to "sneak in" through a loose place in the fence. In doing so, they had to squeeze through a hole in the fence and then jump down about 6 feet. One of them could well have been injured in so doing. I have a scar of my own which I got climbing the fence to get into one of the major horse races during my college days as a testimony to the danger in "sneaking in."

In a field house, exits and exit lights, aisleways, stairways, fire doors, emergency lighting circuits if any (and there should be emergency lighting from a secondary power supply if at all possible), and P.A. systems should be inspected and repairs made as necessary.

In a theater, in addition to the items already mentioned, the fire curtain should be checked and the stage settings should be inspected to be sure they do not obstruct stage exits, fire equipment, or the operation of the fire curtain.

Of course, all planning should be done before the crowd arrives so that there are adequate ushers, ticket takers, traffic control men and police to protect pedestrians and to control vehicular traffic, first-aid attendants (in case of minor illness or injury), and fire guards (particularly in the case of a theater).

Planning should include selecting and training the men who are to control and direct the crowd. Most colleges and universities do not have full-time ushers, ticket takers, or sufficient regular police to handle peak crowds and must depend upon students or staff members to take on these duties; therefore, advance instruction is very important. These men should be fully aware of their duties not only to direct the crowd but also to be ever conscious of the safety of the individual in the crowd. They should not lose sight of this responsibility in their eagerness to get cars parked, people seated, and the whole job done.

Men controlling and directing the crowd should be identifiable. A man in ordinary dress with no identifying marks of authority who starts giving orders to the public may find himself disregarded or shoved aside. A complete uniform is best so that people can readily see who is in charge and who to contact for information or to whom to report an emergency. If a complete uniform is not possible, an

arm band, large lapel button, or cap is a minimum.

Planning also should include keeping local police and fire department officials informed of the schedule of events that will attract crowds. Frequently, as in the case of football games, the full cooperation of local and state police may be necessary to control traffic en route to the event, and this, of course, is an integral part of the safety consideration.

The public address system may play a vital rôle in controlling panic in case anything should happen, so there should be full understanding on the part of the P.A. man as to what he must do in case of emergency, and what instructions he must give the crowd. If an emergency lighting system is in use, the P.A. system should be cross-connected to this power supply so that failure of the primary power supply will not cut off the P.A. system.

All safety regulations must be prepared before the crowd arrives, and these should include determination of safe capacity of the building or stadium. Loose chairs or people standing in aisles can add appreciably to the confusion in case of emergency and should not be allowed.

Ballroom capacities should be limited by exit facilities. This can be calculated from standards given in the "Building Exit Code" published by the National Fire Protection Association.

Decorations should be checked before the crowd gathers. Safety regulation should prohibit the use of paper, cloth or other readily combustible material unless it is treated with a flame retardant treatment. Decorations frequently are a problem at student sponsored dances or at shows where students make their own decorations.

Two or three years ago, one of the prom decoration committees at Purdue had ordered large quantities of Spanish moss to festoon the ballrooms and corridor of our union building. They had been assured by the vendor that it would be fresh, live moss when received and would not constitute a fire hazard. It arrived just the day of the ball and, with no further checking, the committee installed it throughout the building. The building manager, however, was concerned and called the safety department to check. As you might imagine, the moss had dried out in transit and burned like so much excelsior. Fortunately, there were a few hours left before the dance and after spraying all of the moss with a solution of borax, boric acid, and water, it was flameproofed enough so that it was safe to use.

WHILE THE CROWD GATHERS

Now the area has been checked and is free of physical hazards, planning is complete, regulations are established, and the day of the big game, ball or show arrives. This brings us to the second phase.

As the crowd arrives, ushers, ticket takers, traffic men, and police must be alert to see that the crowd does not create hazards for themselves or that last minute changes have not voided some of the careful planning. Traffic men must see that parking is orderly and under control, that pedestrian lanes are kept open and protected, and that fire or emergency roadways are not blocked.

Individuals who make up the crowd frequently are in a holiday mood and perhaps a little impatient and do not always consider their own safety as they should. It is thus important that traffic control men do their job well to prevent accident or injury or blocking of emergency lanes.

When cars are being parked side by side, people who have just parked must be cautioned not to open their car doors until the next car stops, and pedestrians must be kept in pedestrian lanes out of the way of incoming cars.

Ushers must be alert to assist people to their seats promptly and courteously and should give particular assistance to the physically handicapped or infirm. They should try to prevent pushing and crowding.

While the crowd is gathering, a last minute check should be made to see that some special consideration for this one day only has not blocked an exit or covered a fire extinguisher.

Not infrequently in a theater, for example, a traveling show may pile trunks or spare scenery in front of exits or fire equipment, and this situation should be corrected before the fire curtain is raised. In the stadium or field house, a special float or display may be moved in for a half-time show and so positioned that an exit or an emergency lane is blocked.

If, in spite of the careful planning, a larger crowd turns up than can be accommodated, police, ushers and ticket takers must be alert to keep those that cannot be admitted under control and not let a stampede get started. Here again, advanced planning and cooperation of all agencies involved are necessary so that, if possible, a second showing can be announced or some other arrangement can be made to pacify those turned away. This is not so likely to happen at the stadium where a sellout is usually announced in advance but may occur at a theater where there are no reserved seats and there may be a large ticket sale at the door.

WHILE EVENT IS IN PROGRESS

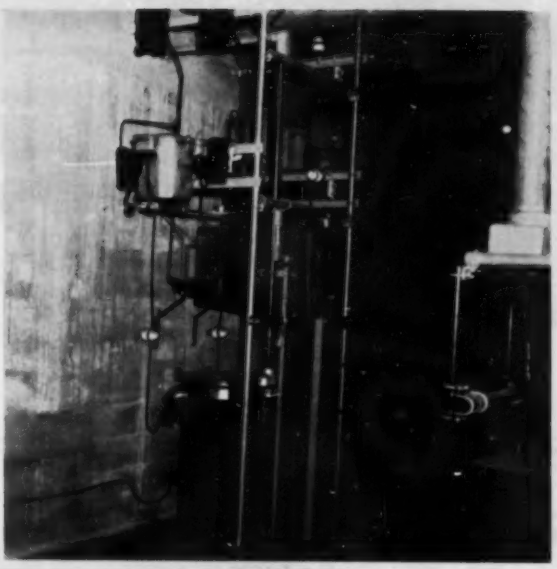
During this third phase part of the people responsible for assisting with the crowd can relax, but some must still be alert and ready. While first-aid facilities should be available before, during and after the event, they get most of their business during the event. Many people come to public affairs who are not physically fit to be there, and there should be medical attention available for them if they need it. We have found that during a football game, for example, a first-aid crew is kept busy almost constantly caring for minor cuts, bruises, blisters, foreign matter in eyes, and so forth, plus caring for or transporting to the hospital an occasional serious case of heart attack, acute appendicitis, or other real emergency cases.

There may be a question as to whether a university or college is required to provide first aid and emergency medical care at a public event. However, with the number of spectators involved, it is inevitable that there will be some need for it and, in the interest of safety and public relations, it seems desirable.

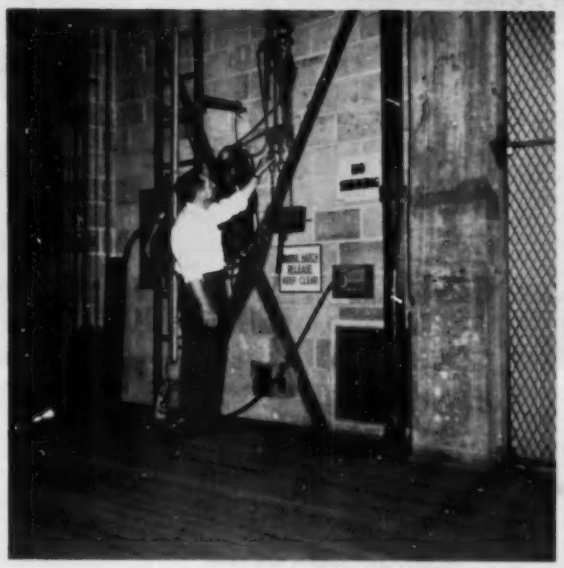
Vendors must be controlled to see that they do not leave empty cases in aisleways. Nor should vendors be permitted to dispense liquids in bottles. There have been rather serious injuries resulting from people stepping on bottles or broken glass. (To say nothing of the hazard to officials if spectators are allowed to have bottles.)

Above all, members of the crowd must be watched to see that they do not let their enthusiasm run away with them to the point where they are a menace to one another. This applies principally to athletic events.

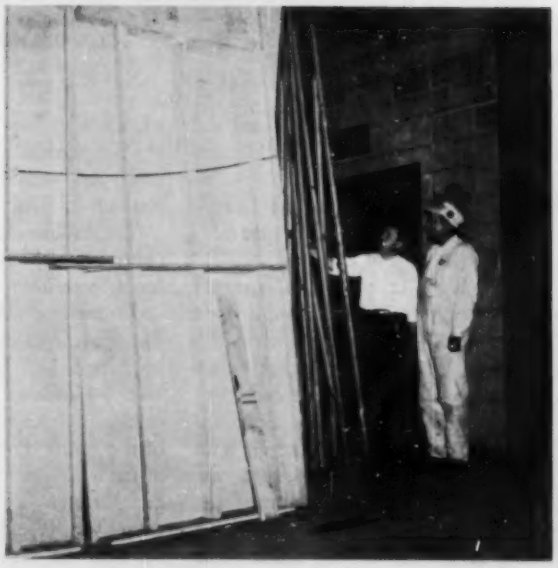
Police must be alert to spot troublemakers and to quiet them down before they can arouse the crowd. If an uprising in the crowd should develop over a particularly controversial play, police, ushers and all employes should move quickly to quell the disturbance. This is not common at college and



Right: Electrical switch-gear from public utility in case of a power supply failure. This picture was taken in Purdue's Hall of Music.



Left: Safety inspector checking smoke hatch release mechanism on the stage of the Hall of Music just prior to a theatrical performance.



Right: The safety inspector reminds a workman that scaffolding must be removed from the aisleway leading to one of stage exits.

university events but does occasionally arise and is one of the things that concerns those who are responsible for management of crowds.

Occasionally, the weather may change during a performance and exitways and sidewalks will be coated with ice or snow. If this happens, arrangements must be made to get salt or sand on walkways to prevent falls.

Also during the performance police and/or fireguards should be alert to enforce "no smoking" rules if such are necessary, and to watch for possible fire or other emergency within the building.

There always should be men on duty who are thoroughly familiar with the building, location of fire equipment, operation of house lighting circuits, and so forth, so that if an emergency should develop, they can immediately turn on house lights, lower fire curtains if necessary, and call the fire department. The public address system can then be used to advise the crowd of the extent of danger and to instruct them as to what they should do to get out quickly and safely.

Possibly there should have been a fourth time phase to this—while the crowd departs. However, the basic features have been covered in the second phase. We can't neglect the departing crowd in that we again have a pedestrian and vehicular traffic problem, and it is our responsibility to see that the people get to their cars and off campus safely.

This may be more difficult than getting the crowd in since they arrive over a period of an hour or more but leave en masse. Here again well trained men, plus a plan for traffic handling, are necessary.

In summary, these things are necessary for safe management of a crowd:

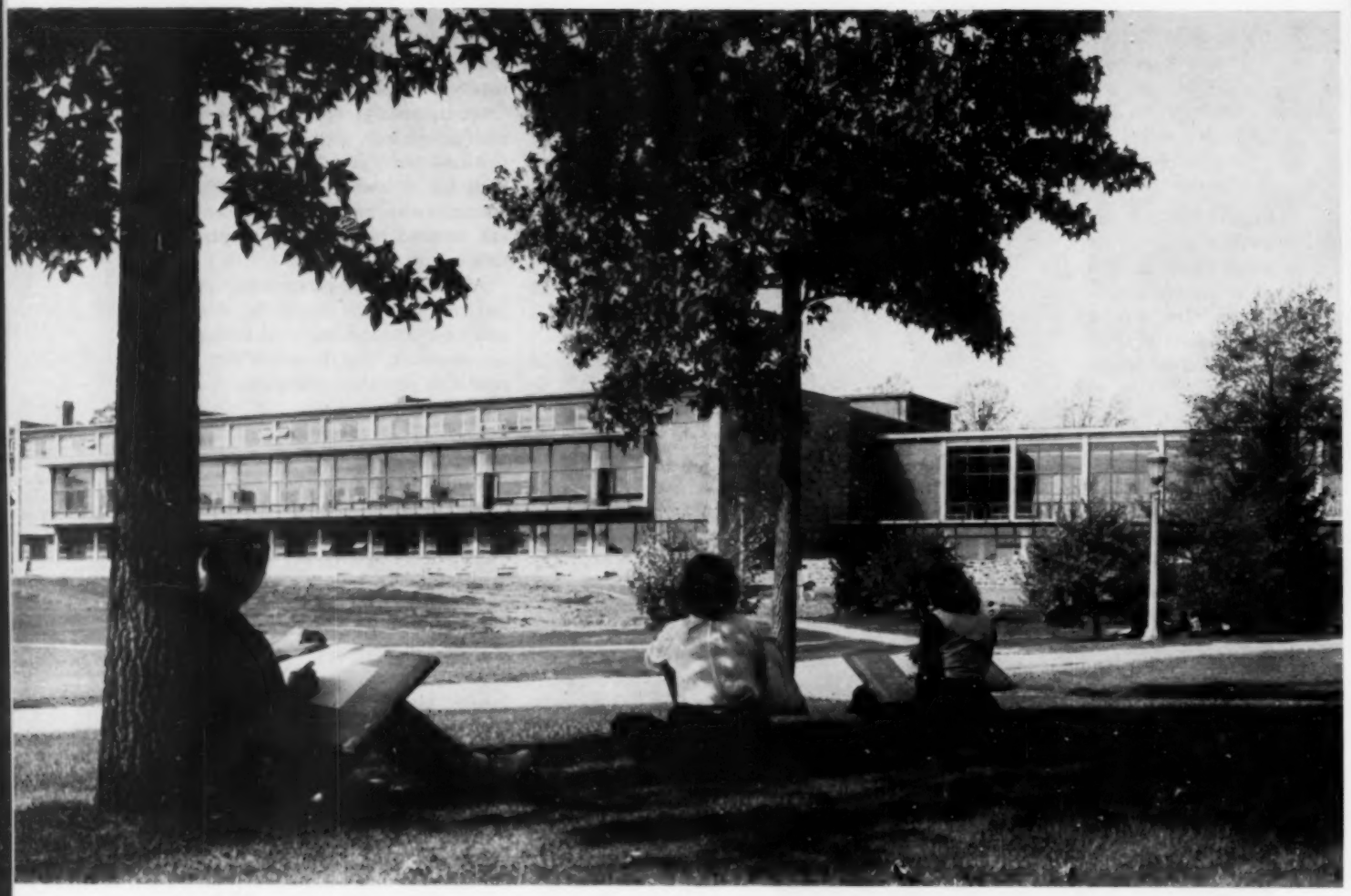
1. Provide a safe place for the crowd.

2. Enforce safety and fire regulations regarding decorations, exit facilities, capacity limits, and smoking.

3. Plan ahead and have sufficient trained men on hand to handle the crowd, including pedestrian and vehicular traffic.

4. Stay ahead of the crowd by stopping any possible trouble while it involves an individual or two and before it infects the crowd.

5. Have men on duty who are thoroughly familiar with the area and who are trained to act in an emergency such as fire.



Penn State's Union Building

GEORGE DONOVAN
Director of Student Union
Pennsylvania State University

AFTER MORE THAN TWO YEARS OF construction, the Hetzel Union Building on the campus of Pennsylvania State University was opened March 15. The ballroom of the building, however, was used on February 22 for the 100th anniversary party of the university, which marked the beginning of Penn State's centennial year.

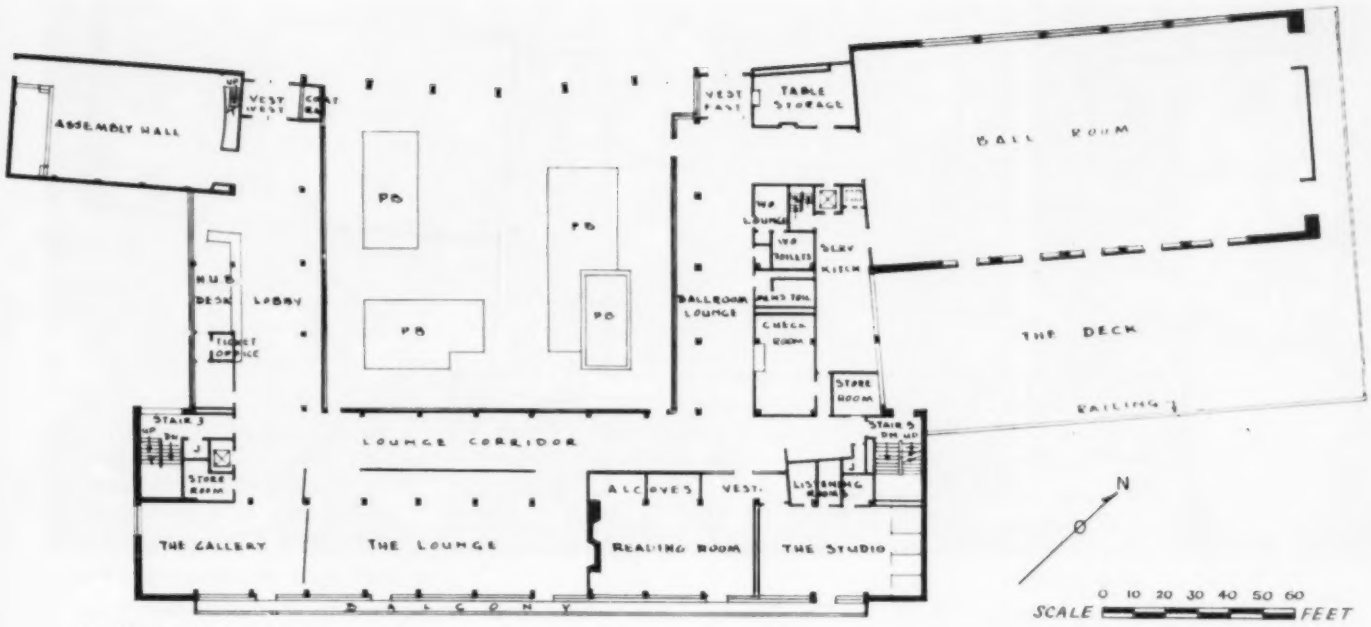
Located in the center of the campus, the building commands a beautiful view of Mount Nittany and the Seven Mountain range to the east and the south.

The union, which was named for the late Dr. Ralph Dorn Hetzel, president of the university from 1926 until his death in 1947, extends for nearly 400 feet along Pollock Road and about 175 feet to the south on Holmes Field. There are three main floors to the building, two terraces, and a landscaped court. A basement provides storage facilities and utilities.

To the right of the main entrance on the first floor is the assembly hall, a windowless lecture hall with 196 comfortable seats. A projection booth is located to the rear of the room.

The central unit on this floor includes the gallery and the lounge, with a view of Mount Nittany from one side and of the landscaped court from the other. An attractive fireplace is framed in a wall of red brick. The reading room, well supplied with magazines, also has a fireplace. A recital studio, which accommodates 100, is equipped with a record library and has seven spacious listening booths.

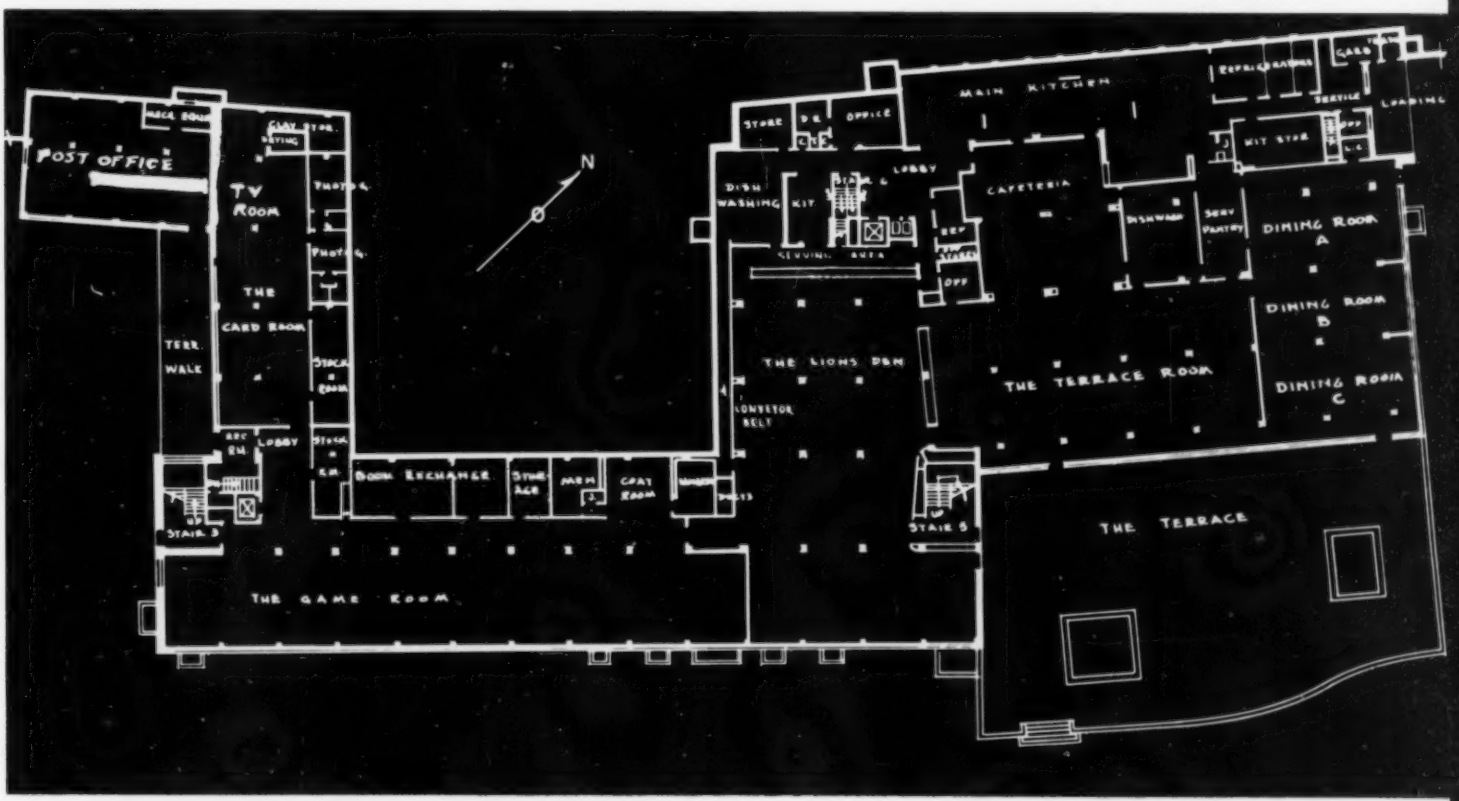
The ballroom lounge overlooks the central court from another side and leads into the ballroom, which will accommodate 700 couples for dances. Finished in a beautiful wood paneling, it is 126 feet long and 65 feet wide. Windows stretch from the floor to the high ceiling to form two sides of the room. French doors on one side of the ballroom open on to a large terrace, known as The Deck, the ideal place for dancing under the stars or for an old-fashioned square dance. For banquets, such as the centennial

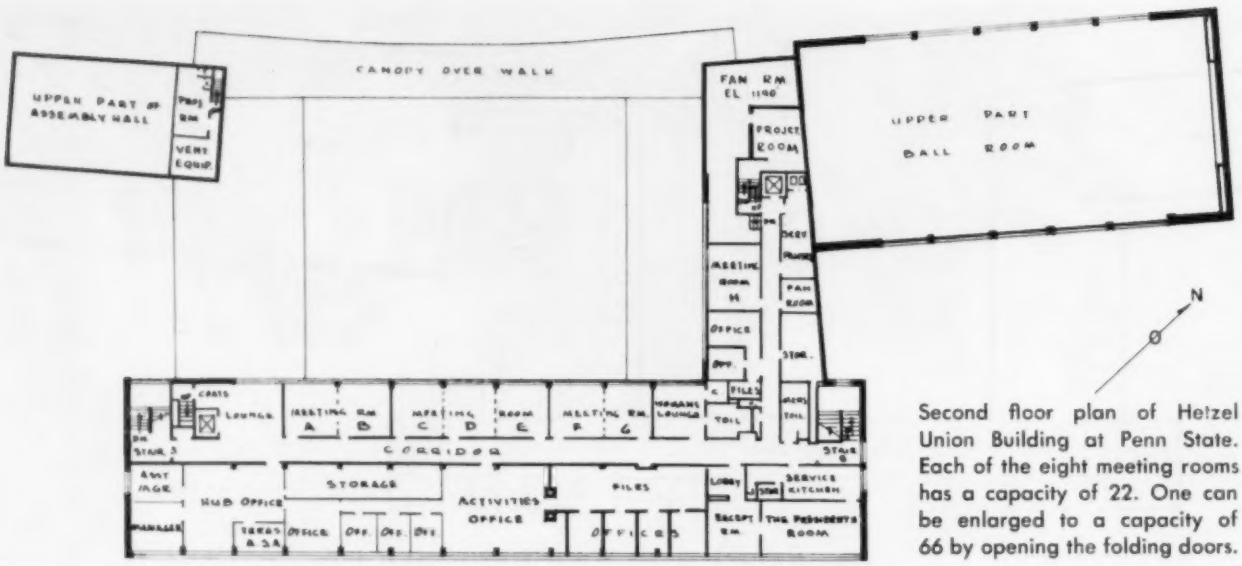


First floor plan

President Eisenhower of Penn State thinks no other single university facility will contribute so much as the new $3 million Union Building. It was first used at the school's 100th birthday party last February.

Ground floor plan





Second floor plan of Hetzel Union Building at Penn State. Each of the eight meeting rooms has a capacity of 22. One can be enlarged to a capacity of 66 by opening the folding doors.

birthday party, the ballroom can accommodate 650 persons. Food is served from a serving kitchen located just outside the ballroom and linked to the main kitchen below.

One floor below the ballroom is a spacious kitchen with rows of stainless metal equipment. Food facilities include the Lion's Den, a snack bar and grill accommodating about 300, which features doughnuts and ice cream. Breakfast is served here daily, as are sandwiches, soups and salads.

The Terrace Room, which serves lunch and dinner daily and accommodates 325, adjoins a cafeteria of modern design that operates on the hollow-square principle to avoid long cafeteria lines. Silverware and trays are picked up in the center of the square. Salads are available on one side, main course dishes at the center, baked goods and desserts are found on the third side, and beverages on the fourth. Each person helps himself to the food he desires, going directly to any of the counters. An open air terrace also is available for dining when the weather permits it.

The three private dining rooms serve about 50 persons each or may be combined to form a room with seats for 225. They are used by groups making reservations or, when not in use for special affairs, may be used by individuals served at the cafeteria.

The ground floor also has two game rooms, one equipped for cards, chess and checkers, and the other for table

Game room

Snack bar and grill

Ballroom doubles for large banquets

Art gallery

tennis, table shuffleboard, and similar games. The student book exchange has quarters here. This floor also has a television room and, for the camera fan, there are darkroom facilities. Also located on this floor is the new university post office station, University Park, Pa., which was opened on February 22.

The top floor has a series of eight meeting rooms, each with a capacity of 22. One of these rooms can be enlarged to a capacity of 66 by moving the folding doors, while two others can seat 44 each by the same method.

Offices for the manager of the Associated Student Activities, as well as offices for student organizations and a file room equipped with 40 double filing cabinets and a safe for their valuable documents, are located on this floor. The President's Room also is located here. It consists of a small dining room with a lobby and reception area, to be used for receiving official guests of the university.

Costing $3 million to build, equip and furnish, the Hetzel Union Building provides facilities for students, alumni and faculty members, all of whom contributed toward its construction. Students in 1950 voted a fee in support of the project, and alumni, in their annual contributions, have helped to furnish the building. The special student fee and gifts and income from the operation of the building will pay for its construction over a period of years.

Studio has seven listening booths for record fans

Glass "window walls" and cantilevered overhangs give the buildings an extremely modern appearance.

Dormitory-Barracks

SAUL LAVISKY
Lyles, Bissett, Carlisle & Wolff, Architects
Columbia, S.C.

CLEMSON COLLEGE, SOUTH CAROLINA'S AGRICULTURAL and mechanical institution, has a new $5 million dormitory-barracks group which was speedily and economically erected by the Youtz-Slick system of lift-slab construction. The new building provides living accommodations for approximately 2000 students and has kitchen and dining facilities for 3500. Within this group are a student activities block with an air conditioned canteen, a small chapel, offices for campus publications, a post office, meeting rooms, and lounges.

The fact that there were to be a large number of identical 12 by 12 foot bedrooms arranged in a simply designed building with large areas of continuous floor space led the architects and trustees to consider lift-slab construction. This system resulted in savings of time, labor and material over more conventional methods. The job was completed in one year instead of the normal two years.

Stripped to its essentials, the new Clemson barracks group is composed primarily of columns and floors. Exterior walls, largely made up of lightweight steel sash, are nonload-bearing. These window walls, together with cantilevered overhangs, give the barracks a contemporary appearance and provide maximum natural illumination and ventilation. In addition to making the rooms appear more spacious, window walls are easy to install and are less expensive than are conventional walls.

Money for the building came principally from a bond issue to be paid off from student room rent over the next 25 years. Some features, which had to be omitted for lack of funds, have been "roughed-in" so they can be added in the future at minimum expense. An example is the proposed air conditioning of the dining hall, which serves

This is a mock-up of the bedrooms. The idea of concrete block partitions was discarded in favor of movable steel, which is lightweight, easily installed, and easily removed.

also as a banquet room for state group meetings and as a ballroom for student affairs.

Barracks units are designed to accommodate military companies of approximately 100 men each with a toilet and shower room area. Corridors are wide enough for military formations during inclement weather, and all living units are connected so that a student may travel from his room to any other room in the building without going outside.

A difference in grade of 35 feet has dictated the stepping of building units. There are nine floor levels in the group but no unit exceeds five floors.

The court or quadrangle was designed for military formations, small court games, sun bathing, and general outdoor meetings. It also provides a direct route from any unit to the dining hall or student activities section. Wide sally ports beneath the buildings connect the quadrangle and perimeter road, providing generous space for marching assembled companies or for fire engines and service vehicles.

A typical bedroom accommodates two. Furniture, specifically designed for the room, includes a double-deck bunk, a built-in sliding door wardrobe with adequate space for clothing, books, footlockers and rifles, and a study desk and chairs. Venetian blinds control sunlight and glare and provide privacy.

Bedroom and corridor floors are asphalt tile while those in the kitchen and shower rooms are ceramic tile. The dining hall floor is terrazzo.

Those interior walls not made up of wardrobes are movable steel partitions. Steel partitions were chosen for their light weight, the speed with which they could be installed, and their adaptability to future change.

The building is heated by steam from a central boiler plant. Finned convectors the full width of the rooms are placed directly below the windows to reduce drafts. Stacks have been provided for the future installation of fans to ventilate and cool the rooms mechanically. The student canteen with its soda fountain and grill is completely air-conditioned as are the lounges in the activities block.

Four freight elevators make possible efficient removal of trash and aid in general maintenance. Students are not permitted to use these elevators, but stairwells, fully encased in masonry, are provided at each unit intersection.

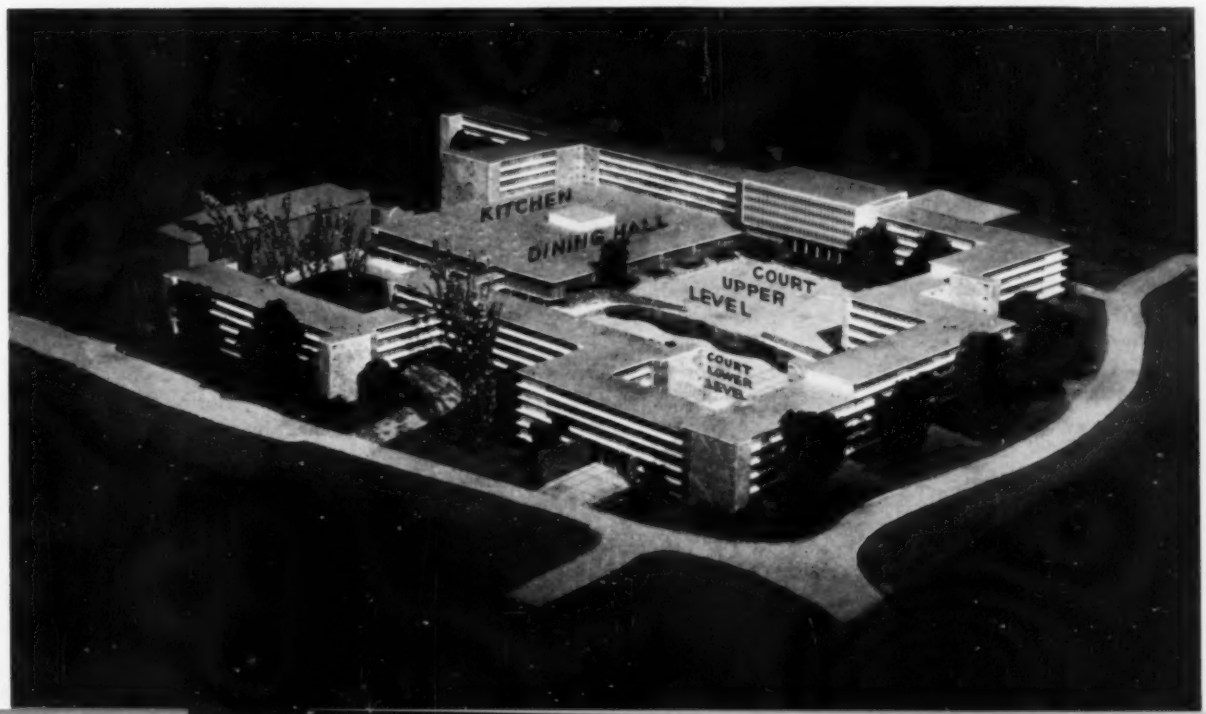
An early view of the lift-slab system in operation. On the left can be seen several slabs that have been temporarily "tied off" while column extensions are added. On the right, the hydraulic jacks and their master control can be seen with three slabs already lifted by the Youtz-Slick construction system.

The large dining hall has 60 loudspeakers through which music is played during meals and at college dances and through which daily announcements are made to students.

An example of the foresight used in planning this new barracks group is the streamlined tunnel and chase system which consolidates all the piping. This system is readily accessible for maintenance and is adequate for additional piping and cable. Should television sets be authorized, the antennae system will be brought into the rooms through the chases.

Public telephones have been installed in the corridors, and chilled water fountains are located on every floor of every section. Provisions have been made for the future installation of telephones in the rooms to be occupied by company commanders.

Model of dormitory group, showing the "stepping" of units into nine levels.



Reporting a survey of

Inservice Programs for Clerical Employes

ELEANOR MALICHE
Supervisor of Training
University of Michigan, Ann Arbor

THE SHORTAGE OF ADEQUATELY trained clerical workers not only is a pressing problem in most businesses today but also is felt in schools and colleges where the rate of pay usually is lower. Many commercial companies have developed training programs within their own organizations to help take care of this problem; up to this time, however, no information has been available on what institutions of higher learning have been doing about inservice training.

My study was undertaken for the primary purpose of finding out whether inservice training of office employes is being done by colleges and universities.

PROCEDURE AND FINDINGS

A questionnaire devised to get at this information was enclosed in an organizational newsletter that reaches the personnel departments of colleges and universities. A few weeks later a follow-up letter was sent to those who had not yet replied.

The organizational newsletter goes to 129 colleges and universities. Eighty-five institutions, ranging in size from very small to very large, replied to the questionnaire; this represented a return of more than 65 per cent. Only one follow-up letter was sent because those who responded to it had no training program to report.

The tables on page 33 show the findings of this survey. When a total is less than 85, answers had been omitted, were incomplete, were not applicable, or were of such a nature that they could not be tabulated.

Some schools indicate that although they have no formal training programs, supervisors or others in the various departments are responsible both for orientation and the on-the-job training of employes. Some admit that this training is done in a rather haphazard fashion; others report that some departments do a pretty thorough job, whereas others in the same school do a mediocre one.

A few schools indicate that employes are permitted to elect courses in the regular college curriculum. The policy regarding this procedure varies. Some schools allow employes to carry six hours of credit in any subject, free of charge; others permit employes to elect only those courses that are directly applicable to the job held. Some permit auditing a course for no credit and with no charge. The policy also varies as to whether or not employes are permitted to take these courses on their own time. Some institutions permit three hours in any subject on university time; others allow only three hours in courses directly applicable to the job held.

In all the institutions the training of clerical employes has been promoted by the personnel department or by the person or department performing the function of a personnel department. Four schools indicate that a full-time person was hired specifically to supervise the training programs, and three indicate that they hired part-time experts. Others who have a formal inservice training program report that the actual training has been delegated on a part-time basis to regular members of the academic departments. As many as five faculty persons in an institution have been engaged in training employes in specific clerical needs.

The length of time that a formal training program or orientation program has been in progress ranges from four weeks to 15 years. In two institutions such a program was in the planning stage, and 66 report interest in this type of training in the hope that it may help to overcome the shortage in adequately trained clerical personnel.

CHOOSING EMPLOYES FOR TRAINING

In the case of new employes, attendance seems to be voluntary. Only 12 of the 30 institutions offering orientation lectures make attendance at the sessions compulsory, and only two of the 19 giving formal inservice training make the training compulsory.

In the case of "old" employes, only 19 of the institutions providing programs for new employes permit "older" employes to participate.

Other than on a voluntary or compulsory basis, employes also are chosen in the following ways:

1. Test records at the time of application and the desire of the employe to take training to better herself. Those chosen have little or no business experience, are very young, have deficiencies in skills, and/or are wholly unfamiliar with an institution of higher education.
2. On recommendation of the department head and on approval of the personnel director.
3. On a voluntary basis with encouragement from the supervisor and the personnel office.
4. On strong recommendation from

the personnel department and the department concerned.

5. On the basis of job content as related to course content.

6. In the case of refresher training, by need; in the case of advanced training, by merit.

The training in most cases tends to be for the improvement of immediate needs rather than for upgrading the employe either in job classification or in salary. Only eight schools tie in the inservice training with job promotion, and only three tie it in with salary increments. However, these institutions stress the fact that they are making an active attempt to promote from within the organization, and therefore reaction to the training and satisfactory completion of a course have an effect on promotions and are considered in making salary increases. Only three of the schools have a set policy of giving an increase immediately upon the satisfactory completion of a training course.

Table 1—Number of Schools Offering Formal Orientation and Inservice Training Programs

Size of School	Orientation	Inservice Training	No. of Schools in Group
Under 2,000	5	2	21
2,001- 4,999	5	3	19
5,000- 7,499	4	1	9
7,500- 9,999	3	2	10
10,000-14,999	4	3	9
15,000 and over	9	8	14
TOTALS	30	19	82

Table 2—Geographical Locations* of Schools Offering Orientation and Inservice Training Programs

Program	West	North Central	North-east	South	Total
Orientation	5	15	5	5	30
Inservice Training	5	11	1	2	19

*Breakdown of regions taken from U.S. Bureau of the Census. County and City Data Book, 1952. U.S. Government Printing Office, Washington 25, D.C., 1953.

Table 3—Comparison of Public and Private Institutions as to Orientation and Inservice Training Programs

Program	Public Schools	Private Schools	Total
Orientation	22	8	30
Inservice Training	18	1	19

RELEASE FROM JOB FOR TRAINING

Most institutions train their employes during the regular workday. In some institutions the training is given from one-half to two-thirds on company time and from one-third to one-half on employe time. Only one school requires that the employe make up the time spent in training classes.

As for releasing employes from their jobs to participate in these training programs, the policy varies. Generally, cooperation of the supervisor is solicited in advance to assure a good working relationship. In one school the supervisor is obliged to release an employe for training if his department head has approved his department's participation in this activity. In some cases the decision is left entirely up to the supervisor. If he feels the training content will be directly related to the improvement of university services on the job, he may request that his employes engage in such training.

REASONS FOR TRAINING PROGRAM

Institutions believe that training programs are desirable for the following reasons:

1. Better efficiency in job and work output, knowledge of newer methods, more economy.

2. Improved morale. The employe learns to like his job better sooner; therefore, there is less turnover.

3. Better skills and job understanding. The average applicant for a stenographic, clerical or secretarial position is either technically deficient in skills or, if proficient, is so inept in an academic atmosphere that she needs a thorough indoctrination and submission to severe job standards.

Those institutions that have training programs in operation say:

1. Persons involved like our efforts very much. They wonder (and so do we) why we had not started something sooner.

2. With the clerical employes' market as it is, the program enables us to employ beginners and others who need a brush-up. It also gives us a good idea of who the employes are who are interested in bettering their skills and jobs.

3. We feel the inservice training program is especially necessary in offices where only one or two persons are employed, in order to have continuity within an office or department. We are planning on making our office procedures course a requirement and will continue offering the skill courses on a voluntary basis.

4. It has been our experience that the training has resulted in more efficient employes and in higher morale because of the added possibility of promotion.

5. The fact that we have an unusually high continuance of our better employes since the time our program was instigated, in the face of unusually stiff competition for their services, speaks well for the value of our program and the good reception it has received both by the employes and the top administration.

Only three schools indicate that they do not believe in formal inservice training programs for clerical employes. Their reasons follow:

1. We believe that inservice training tends only to develop skills. In most of our jobs skills are not important. When instruction in clerical skills is available in high schools and business schools, we don't feel we should provide it.

2. There is a question of the value of general training of clerical employes. Training and experience in the specific job they are to fill seem to be much more important.

3. Our organization is not large enough to warrant such a program.

4. We hire clerical help with the basic ability required by the position to be filled. Our urban situation allows us to find adequate applicants. Local business colleges provide study opportunity for ambitious employes.

Progress on the job is noted for advancement.

5. We would not be able to profit much from a training program since many trained people would leave the institution to go into private employment at more favorable salary levels.

CONCLUSIONS, RECOMMENDATIONS

More and more institutions are realizing the value of properly orienting and training their clerical employes from the standpoint of economy, efficiency and morale. Most of the schools that have programs have initiated them only within the last four years. Only six schools report longer experience with training programs.

No specific policy exists concerning the training of all employes. Attendance at the training sessions appears to be in most cases voluntary, and this is perhaps a weakness in administering the program.

Only six institutions employ a trained person to supervise the program and, perhaps, to do some of the training. There may be a weakness in this respect, because of inefficient methods of instruction. Most people believe that if they know a subject they can teach it. However, training is expensive, and since the organization carries the cost, it should be certain that the training job is done efficiently and in the least time possible.

An institution whose business is education should be able to do something to improve the services of those working for it by the use of its own facilities.

Evaluation of an inservice training program would be desirable. Some institutions report that supervisors are reluctant to release employes for training because so much time is lost by the department. If this training is valuable, this view is shortsighted, for the benefits would far outweigh the immediate inconvenience.

A training program should not concentrate on the mere improvement of skills, although this training fills a basic need of most clerical applicants. It should concern itself also with maintaining desirable performance standards, taking full advantage of new ideas and technics, and facilitating constructive, problem solving thinking.

Technics of the Management Survey

Part 4 of a series by IRVING SALOMON
Consultant, The Fund for the Advancement of Education, New York

WHETHER A SURVEY IS CONDUCTED by professional consultants or by members of the institution's own staff, certain technics are indispensable. Others are optional and should be determined by the executives ordering the survey. Much depends upon the circumstances and requirements of the individual institution, and obviously the skill and experience of those who will conduct the survey. However, certain basic procedures are prerequisites to a successful survey and should be understood by all parties concerned.

Those basic procedures are:

1. There should be adequate advance orientation of all department heads and personnel.

2. Before the issuance of the final report and prior to any installation, the recommendations suggested should be discussed with these persons. This process should include inviting suggestions and giving credit for them to the originators in the final report if the suggestions are valid. This technic is essential not only to assure accurate statements relating to each department's operation but also to help establish mutual interpretation of departmental problems and their solution. Such participation by the departmental staff sustains support of the survey and accelerates action on recommendations.

3. The report should not limit itself to definition of the problem and recommendations but should include such analyses, statistics and/or supporting data as may be required for the necessary evaluation, limited there, however, to the bare essentials.

Professional management consultants vary in their methods, their areas of concentration, their specialized skills, the type of reports, and the degree of participation in the implementation. Self-surveys also are bound to differ, particularly insofar as they are circumscribed by the talent and the time available.

Whichever the agency chooses, there should be a clear understanding of the technics to be utilized and the nature of the final report. As the report can range from an elaborate document, pin-pointing every problem and lengthily prescribing the remedy to a rather negligible letter that merely lists the findings and the installations made, and as there are additional optional technics, these are discussed here.

1. If management consultants are employed, will they accept the full responsibility for any installation or will the personnel of the institution assume this responsibility, and to what extent? It should be noted that some firms seem to limit themselves to investigation, analysis and perhaps some research. Others add to this the "blueprint" or comprehensive plans for activating their recommendations, including detailed methodology, forms

and even the steps for implementation. Still others consider the installation as an integral part of their commission. The decision must rest with the officials of the college or university.

2. If a self-survey is intended, a similar decision must be made concerning the nature and extent of the operations.

3. A survey can have depth or can be comparatively superficial. Obviously there should be penetration in those departments and functions where there is evidence of inadequacy and nonfulfillment of purpose as well as in those departments that might produce the greatest economies. However, in many instances this is difficult to determine. Consequently, one of the technics used is the "reconnaissance" survey.

The reconnaissance survey calls for a general but not deep analytical study of the more important departments and activities, and as many others as the funds allocated will permit. As a result of this survey, the executive heads of an institution can quite readily determine the areas, and also the priority, for further study. The reconnaissance survey, with a detailed report on the findings, is a highly desirable technic, whether the follow-up survey is done by professional consultants, personnel from the institution, or both.

4. The "call-back." From three to nine months after the study is completed, the surveyors should review with the top executives the progress made in installing the recommendations made, or the failure to do so. It is important that any problems encountered that have prevented the effectuating of the recommendations be fully discussed not only with the heads of the institution but with the departments involved. The original fee negotiation with the management consultants should include the charges for "call-back" or, preferably, for continuing services for such length of time as may seem desirable.

5. Another technic sometimes used is a confidential letter from the surveyors to the president, dealing with such matters as might be inappropriate in a report that might become quasi-public. Such a letter might discuss such items as remuneration problems and programs, personnel reassignment, and the like—at the option of the president.

6. Upon completion of the final report and prior to making any of the recommended changes, at least of a major nature, there should be a detailed discussion of the findings. This should take place between the president and his top staff and the surveyors. Ample time should be allowed for this significant phase of the survey, especially as some of the problem areas can be discussed in more detail than in the report.

7. What is to be the form of the report? Since much of the cost of some surveys is apportioned to the writing and publishing of a report, it is important that the following eight questions be answered.

Is the report to be merely a brief accounting of the findings and record of the improvements instituted? (Applicable only where the surveyors fully install their recommendations.)

Is it to be a detailed informative document for the president or chancellor and the board, or is it to take the form of specific guidance for all administrative heads whose departments were subjected to study.

Is the report to contain supporting charts and graphs or may they be omitted? (They cost money, but may be worth it.)

Is the report to contain comparative figures of like institutions where available and useful? (Determine if such data might prove to the disadvantage of the institution or are likely to be misinterpreted.)

Is the report to be limited to administrative improvements and economies, or may it also include recommendations that would increase operating expenses where deemed advisable for better functioning. (This is mentioned owing to instances in which a president has received the approval of the board for a survey under the impression that economies only would be recommended. Instead, to the embarrassment of the president, greater expenditures than economies have been suggested for the institution.)

If the report is to contain recommendations for capital expenditures or major alterations, are the management consultants to include an estimate of the cost thereof?

May the report contain recommendations that may be in direct conflict with the traditional policies of the institution?

Is the report to contain a summary itemizing all recommendations, their priority, and their operational and budgetary significance?

Some management consultants adhere to specific technics from which they prefer not to deviate—and usually have good reason for doing so. It is therefore highly desirable that the employing official be acquainted with the variance in technics as discussed in this series of articles so he is prepared to negotiate for the inclusion of those he deems best suited by his needs.

In the case of self-surveys the situation differs in that the limitations are imposed by the skill and experience of the team and by the climate in the individual college or university.

(*To Be Continued Next Month*)

Planning for Increasing Enrollment

. . . is becoming the prime concern of most college administrators. In the December issue, C. S. Havens of the University of Illinois will describe the technics used there to estimate enrollments for the next 18 years. Without such data there can be no sound planning of the physical plant, he believes.

Continuing a series on finance

by JOHN DALE RUSSELL
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Analysis of Expenditures for Administrative and General Purposes

IN THE FIRST TWO OF THIS SERIES OF articles on analysis of expenditures of educational institutions, we reviewed briefly two methods of expenditure analysis that have been developed, with stress on the need for normative data. This third article will deal with some methods of analyzing and interpreting expenditures for administration and other general purposes. Subsequent articles will be concerned with other functions, such as libraries, instruction and plant operation and maintenance. Expenditure data collected since 1952 for six New Mexico institutions will be used for illustrative purposes.

Administration and general expense is one of six principal subcategories under educational and general expenditures recommended in the 1935 report of the National Committee on Standard Reports for Institutions of Higher Education. The other five are instruction, organized research, extension, libraries and physical plant operation and maintenance. Included under administration and general expense are the costs of all offices, units and activities that serve the entire institution; excluded are expenditures for the library and plant operation and maintenance. This is, in broad terms, the definition of administration and general expense used by the controllers of the New Mexico institutions in their financial reports.

Somewhat more specifically the broad function of administration and general expenses, as used in the accounting systems of the New Mexico state educational institutions, includes three major categories: (1) administration, (2) student welfare, and (3) general expenditures.

Included in the first category of "administration" are such sub-items as the expenses of the board of regents, the president's office, the business office, the registrar's office, the information and public relations office, legal expense, auditing, administrative publications, administrative travel, and the retirement payments for administrative staff members.

Under "student welfare" are such functions and services as the dean of students office (or the dean of men and dean of women), counseling and testing service, student health service, placement service, and alumni office.

"General expenditures" consist of a number of items that cannot readily be allocated to other functions, such as dues and membership fees, commencement and diplomas, post office, telephone service, mimeographing and mailing, receptions and entertainment, and group life insurance. This last item, group insurance, might perhaps better have been distributed to the various functional areas in which the staff members serve, *i.e.* the amount on behalf of faculty members should be charged to instruction, that for members of the buildings and grounds staff should be charged to plant operation and maintenance, and that for administrative staff members to administration. Such a policy is followed in the accounting for retirement fund payments but has not been followed for group life insurance because the item is relatively small and the increased accuracy of accounting might not be worth the labor of distributing the amount involved to the various accounts.

The expenditures here reported for administration and general purposes in the New Mexico institutions are the

Table 1—Expenditures for Educational and General Purposes in a State Institution of Higher Education for Each Year From 1951-52 to 1955-56, Analyzed in Terms of Percentage and Amount per Full-Time Equivalent Student for Each Function

Fiscal Year	EXPENDITURES FOR EDUCATIONAL AND GENERAL PURPOSES						
	Administration and General	Instruction	Organized Research	Extension	Libraries	Plant Operation and Maintenance	Totals
Amount*:							
1951-52	$377,606	$1,591,077	$47,877	$55,139	$153,087	$446,830	$2,671,616
1952-53	378,905	1,557,117	37,937	57,139	147,373	414,051	2,592,522
1953-54	409,216	1,668,441	45,255	56,426	149,901	401,365	2,730,604
1954-55	410,000	1,716,000	46,500	68,000	153,500	420,000	2,814,000
1955-56	470,000	1,995,332	51,833	73,200	173,235	508,000	3,271,600
Percentage:							
1951-52	14.1	59.6	1.8	2.1	5.7	16.7	100.0
1952-53	14.6	60.1	1.4	2.2	5.7	16.0	100.0
1953-54	15.0	61.1	1.7	2.0	5.5	14.7	100.0
1954-55	14.6	61.0	1.6	2.4	5.5	14.9	100.0
1955-56	14.4	61.0	1.6	2.2	5.3	15.5	100.0
Average	14.5	60.6	1.6	2.2	5.5	15.6	100.0
Amount per student:							
1951-52	$117.16	$493.66	$14.86	$17.11	$47.50	$138.64	$828.93
1952-53	119.15	489.66	11.93	17.97	46.35	130.20	815.26
1953-54	124.42	507.28	13.76	17.15	45.58	122.03	830.22
1954-55	110.01	460.42	12.48	18.25	41.18	112.69	755.03
1955-56	114.22	484.89	12.60	17.79	42.10	123.45	795.05
Average	116.99	487.18	13.13	17.66	44.54	125.40	804.90

*Amounts for first three years are actual audited figures. Amounts for 1954-55 are estimates reported approximately two months before the close of the fiscal year. Amounts for 1955-56 are the budgeted expenditures.

net amounts used for educational and general programs. In the case of each institution an appropriate amount for administrative overhead has been allocated to auxiliary enterprises and to organized activities related to instructional departments, and such allocations are subtracted from the gross expenditures for administration and general purposes.

The amounts of the allocations are determined individually by each institution on whatever basis seems appropriate. Similarly in those institutions which have contract-research programs and in which payments are received under the contracts for indirect administrative costs, the amount of such receipts is subtracted from the gross institutional expenditures for administrative and general purposes.

The primary purposes of every institution of higher education are instruction and research. Administrators and administrative services exist to aid the faculty, those who do the actual research and teaching, to carry out their functions. This policy should be clearly reflected in the financial operations of an educational institution. A simple method of showing the relationship between instruction and administration is to compute the percentage distribution of total educational and general expenditures for each function. These figures are most useful when computed for a time series of several years. Table 1 shows what such data look like for a state institution of higher education for each year from 1951-52 to 1955-56.

For the current fiscal year, 1955-56, the institution shown in Table 1 has budgeted for instruction 61 cents of every dollar designated for educational and general purposes, and for administration and general purposes less than 15 cents out of every dollar. The data for previous fiscal years show that this relationship is not unusual; this institution has consistently maintained approximately a 4 to 1 ratio between expenditures for instruction and those for administration and general purposes. This kind of budgetary information is very reassuring to legislators, who sometimes entertain the suspicion that an increasingly large proportion of state appropriations is expended for high salaried administrative officers and similar "unproductive overhead." Legislators and supporters of an institution also are interested in knowing what the relationship is between expenditure for a given function and the number of students served. Is the expenditure per student for administration rising? If so, how much? Such a question can best be answered by an analysis of expenditures for educational and general purposes showing amounts per full-time equivalent student for each function as presented in Table 1.

Table 1 shows that the amount per student budgeted for 1955-56 for administration and general, and for virtually every other function, is lower than the comparable expenditure for any other fiscal year of the five-year period, except 1954-55. The officials of the institution should have no difficulty explaining the drop in expenditures per student for 1954-55. In that year there was an unexpected increase of 13.3 per cent in enrollment. The appropriation already had been fixed by the legislature, so the institution had to make the best of the situation with the funds it had available for that year. The problem was presented

to the next state legislature, and it provided a 22 per cent increase in appropriation for this institution. The effect of this increased appropriation on institutional operations is reflected in the amount per student budgeted for 1955-56 for educational and general purposes, as shown in Table 1.

The experience in New Mexico has been that members of legislative finance committees generally have a keen appreciation for compactly presented data on expenditures and costs. They may listen with apparent sympathy to a president's oration about the needs of his institution, in which he emphasizes the difficulties of employing and retaining competent faculty members and the pressure of increasing enrollments. But they seem to show a decided preference for unit cost figures, such as expenditure per student for educational and general purposes. When properly computed and interpreted, such data can sum up a good many arguments in a neat little package.

Institutional officials should support their petitions for more appropriations with such information. Otherwise they are likely to find themselves confronted by a request to comment on some analytical data claimed by a legislator to have been computed by him from the financial records of the institution or by some budget analyst who is not particularly well versed regarding college and university finance.

The institutional official in such a situation faces a double jeopardy. In the first place, it is always embarrassing to have to explain figures with which one is unfamiliar. In the second place, such data often will have been amateurishly calculated or otherwise do not properly reflect the educational program of the institution. An incorrect interpretation, once it is publicized, is difficult to correct. And if the effort is made to correct it, the legislator may be antagonized by what seems to him an attempt to discredit his figures.

The presentation of budget analysis data for one college or university generally invites comparison with similar information for other institutions. Is it unusual that only 15 cents out of every dollar designated for educational purposes is budgeted for administration and general expense? Are other institutions able to do on fewer dollars per student, or do they usually spend more? To provide answers to such questions on a truly comparable basis is one of the hazards of dealing with budget analysis data.

Worse still is the necessity of explaining why some other institution can operate with lower unit costs or can budget a greater proportion of its educational and general expenditures for instruction and less for administration. Low unit cost figures may indicate either great efficiency or poor quality of service; conversely, high cost figures may reflect either comparative inefficiency or an excellent quality of service. And again differences in expenditure pattern or cost per student might be due to factors, such as difference in accounting practice, totally unrelated to the question of efficiency or quality.

There is only one satisfactory solution to this problem. Normative data of the kind that will enable one institution to compare its expenditures with those of another must be collected and be made available. The few investigations that have been or are being made to obtain such information were reviewed in our previous articles in this series.

In addition to the California and Big Ten cost study now under way, another is in progress. This project, referred to as the "Sixty College Study," is under the direction of the National Federation of College and University Business Officers Associations. The results of this study, if published and made readily available, should be applicable to the expenditures of a large number of the nation's colleges.*

In order to answer questions calling for comparison of expenditure data among institutions, the New Mexico Board of Educational Finance, since it began operations in 1952, has made an annual analysis of the budgets of the New Mexico state colleges and universities. Table 2 shows the percentage distribution of educational and general expenditures for each function and the amount per student expended by each of the six New Mexico state institutions of higher education for 1954-55, the last completed fiscal year. The final line of Table 2 shows the five-year average for all six institutions combined. This five-year average includes data from 1951-52 through the amounts budgeted for 1955-56.

It will be noted from Table 2 that the percentage distribution for the total of the six institutions for 1954-55 differs little from the average for the five-year period. One of the interesting observations from this attempt to collect and present normative data is the stability of the percentage distribution of expenditures among the various functions. The figures change little from year to year, either for the individual institutions or for their combined average.

Although the percentage distribution for an institution is very stable from one year to the next, Table 2 shows that, among the institutions, the percentages of total educational and general expenditures devoted for administration and general expense vary

Table 2—Percentage Distribution of Total Educational and General Expenditures for Each Function for Each of Six State Institutions of Higher Education for 1954-55, and Average for All Six Institutions Combined for Five-Year Period, Including Budget for 1955-56

Institution	Full-Time Equivalent Enrollment	Administration & General	Instruction	Organized Research	Extension	Libraries	Plant Operation and Maintenance
"A"	3,727	14.6	61.0	1.6	2.4	5.5	14.9
"B"	1,702	14.6	61.8	0.2	0.0	5.3	18.1
"C"	925	14.0	60.1	—	0.3	4.9	20.7
"D"	464	21.8	50.4	—	3.0	5.1	19.7
"E"	967	22.2	54.4	—	2.7	5.7	15.0
"F"	174	15.9	48.4	—	—	4.3	31.4
Weighted average for 1954-55		15.9	59.0	0.8	1.7	5.3	17.3
Five-year average for all institutions combined		15.7	58.9	0.8	1.6	5.3	17.7

*Subsequent to the submission of this article to the editor, the completed report of the "Sixty College Study" was published. Copies have been sent to all interested institutions by the National Federation of College and University Business Officers Associations.

Table 3—Expenditure per Student for Each Educational and General Function for Six State Institutions of Higher Education for 1954-55, and Average for All Institutions Combined for Five-Year Period, Including Budget for 1955-56

Institution	Full-Time Equivalent Enrollment	Administration & General	Instruction	Organized Research	Extension	Libraries	Plant Operation & Maintenance	Total Expenditure per Student
"A"	3,727	$110.01	$460.42	$12.48	$18.25	$41.18	$112.69	$755.03
"B"	1,702	100.70	428.19	1.06	0.18	36.80	125.48	692.41
"C"	925	97.60	417.47	——	2.42	33.73	143.78	695.00
"D"	464	195.00	450.04	——	26.79	45.56	175.63	893.02
"E"	967	136.28	334.28	——	16.55	35.16	92.00	614.27
"F"	174	268.53	814.66	——	——	71.53	529.17	1,683.89
Weighted average for 1954-55		$118.18	$440.35	$6.07	$12.44	$39.57	$129.30	$745.91
Five-year average for all institutions combined		$128.23	$481.80	$6.79	$12.91	$43.28	$144.99	$818.00

considerably. They range from 14.0 per cent for institution "C" to 22.2 per cent for institution "E." The weighted average for the six New Mexico institutions is 15.9 per cent. It is clear from the table that at least two of the institutions have some explaining to do if they are to justify the relatively high proportion of their total expenditures used for administration and general purposes.

The Board of Educational Finance, charged with responsibiltiy for coordinating the finances of the institutions, has put pressure on these two institutions to study their administrative services in an endeavor to bring them more nearly into line with the norm as set by the other institutions. The recommendation has been that not more than 15 per cent of total educational and general expenditures should be devoted to administration and general purposes, and proposed budgets that allocate a larger percentage are scrutinized critically and are generally reduced by the Board of Educational Finance. That such pressure has not been fully effective in the three years the board has been in operation is shown by the fact that two institutions were still badly out of line in 1954-55.

Previous studies dealing with data for institutions of higher education have established that any one of the following factors may result in variation in figures showing percentage of total spent for administration and general: (1) differences in accounting practice; (2) degree of adequacy of support; (3) size of enrollments, and (4) differences in institutional policies with respect to salaries and elaborateness of the administrative staff.

For the six New Mexico institutions the first two factors can be ruled out as having no significant effect on the percentage of total educational expenditures spent for administrative and general purposes. With respect to both classification and handling of expenditure data and adequacy of support, this group of institutions has about as high a degee of comparability and similarity as could be found.

SIZE MAKES A DIFFERENCE

Examination of the enrollment data strongly suggests that size of the institution could account for some of the difference in the percentage figures showing proportion of total educational expenditures spent for administration and general. The larger institutions tend to assign a smaller part of their total educational expenditures for this function. There are, however, two notable exceptions.

Institution "E," which ranks third in enrollment, devotes the largest proportion of its educational expenditures to administration and general functions. Examination of the administrative organization of this college shows that it is top-heavy and over-elaborate. The same organization could adequately serve an institution with at least 50 per cent more students. Institution "F," the smallest from the standpoint of enrollment, spent only 15.9 per cent of its total educational and general expenditures for administration and general purposes. This institution, in addition to its instructional program, maintains an extensive contract-research program. A large proportion of its total administration and general expense is charged off as overhead to the contract-research program.

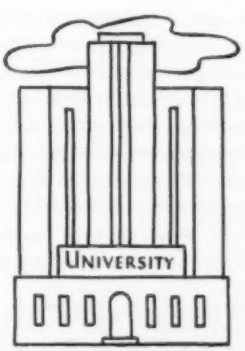


Table 3 shows the amount expended per student for each of the functions under educational and general expenditures. The table shows the amounts for each of the six institutions for the last completed fiscal year, 1954-55, and also the combined average for all six institutions for a five-year period, beginning with 1951-52 and running through the budgeted amounts for 1955-56.

As previously explained, 1954-55 was a low year for expenditure per student because of the general increase that occurred in enrollments that year without there being any corresponding increase in budgetary support. The five-year average is thus substantially above the amounts for 1954-55 for each of the functions. There also has been some effort put into increased efficiency so that the institutions are serving more students without correspondingly increased appropriations.

Table 3 shows that the amounts per student expended for administration and general purposes, like the percentage figures, vary rather widely. Three or four of the institutions are reasonably close to the average, but two, "D" and "F," are decidedly out of line. In view of the size of its enrollment, institution "E" also is out of line. It will be recalled that "D" and "E" were also institutions that had a high percentage of their total devoted to administration, but "F" was not out of line on the percentage figures.

(To Be Continued Next Month)

Faculty Resignations

Does the president have the authority to accept them?

T. E. BLACKWELL
Vice Chancellor and Treasurer, Washington University, St. Louis

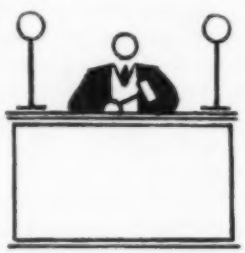
ON OCT. 25, 1951, HARRY S. KIEVAL, an instructor at Brooklyn College, handed his letter of resignation to the president of the college. It was accepted at once. The next day Mr. Kieval informed the president that he had reconsidered his decision to resign and that he would like to withdraw his resignation. A few days later he addressed a formal written withdrawal of his resignation, requesting that it not be reported to the governing board. He was informed that his resignation would be reported at the next meeting of the board.

Mr. Kieval filed an application with the commissioner of education for a review of his case and for an order to the Board of Higher Education of the City of New York to reinstate him, with payment of accrued salary. His petition was denied and he appealed the decision of the commissioner of education.

On May 11, 1955, the appellate division of the Supreme Court of New York upheld the decision of the commissioner.[1] The following is from the opinion of the court:

"We think that the president had the power to accept the petitioner's resignation, and, by acceptance, place it beyond the legal election of the petitioner thereafter to withdraw it. The by-laws of the board delegated to the president certain administrative functions between meetings of the board. He could fill temporary vacancies in the instructional staff of a grade to which the petitioner's position belonged and make 'such administrative arrangements' as 'cannot well await' the action of the board. The acceptance of a resignation effective at once is within the frame of such a delegation. It is an administrative arrangement to be integrated with the operation of a college while the administrative board is not in session and to be grouped with filling temporary vacancies arising between such meetings."

This case raised the question of delegation of authority. In this country, the governing board of the typical endowed college or university has plenary authority, limited only by



the provisions of its own charter, the laws of the land, and public opinion. By by-law, ordinance and custom, much of this authority is delegated to the president, the chief executive officer of the board. The president, in turn, delegates many of his duties and responsibilities to his administrative officers and deans. However, the governing board remains the repository of power since it may, at its pleasure, withhold or withdraw its delegation of authority.

AMERICAN PATTERN IS UNIQUE

We are so habituated to this pattern of centralization of power in an external board that it is interesting to remind ourselves that it is quite at variance with the form of self-government evolved by the medieval universities of continental Europe.[2] At Salerno, Bologna and Padua, the students as well as the faculty were represented in an all-powerful university council. At Paris, Oxford and Cambridge, the students were somewhat younger and were granted little voice in administration.

The university chancellor was originally the representative of the church, but by the latter part of the Fourteenth Century, the congregation or faculty of arts at Oxford had obtained full control over his selection and appointment. This power was lost by the faculty in 1484 when the chancellor became an honorary position, filled by a nonresident and selected by the political group in power in England.[3] The chancellor was given the right to appoint the vice chancellor, who became the resident officer in charge of university administration.

In 1569, the faculty of Oxford lost further control of administrative functions by the creation of an executive council composed of the vice chancellor, heads of houses, and proctors.

When Harvard, the first American university, was established in 1636 and its form of government determined in 1642, all responsibility for the administration of the institution was placed in the hands of a body of laymen, neither selected by its faculty nor responsible to it. According to Lindsay and Holland:[2]

"The theory of university administration upon which Harvard was founded is the theory of the modern American university, though the form is not always the same. Not all have the board of overseers; not all have the closed corporation; but the principle of centralized administrative authority, responsible to powers outside the institution, obtains in practically all American institutions of higher learning today."

[1] Kieval *v.* Wilson, 140 N.Y.S. 2d. 756.

[2] Lindsay, E. E., and Holland, E. O.: College and University Administration, Pp. 3-16. The Macmillan Co., New York, 1930.

[3] Her Majesty Queen Elizabeth, the Queen Mother, will be installed as chancellor of the University of London on Nov. 23, 1955.

Are they efficient as structures? . . . How do they affect the students who live there?

The Residence Halls We Build

H. C. RIKER
Director of Housing, University of Florida, Gainesville

POOR PLANNING CAN BE COSTLY. Let me give a few examples that I have picked up during a survey of new housing construction during the past year. My information comes from 75 colleges and universities, most of them east of the Mississippi.

1. One business officer reported 122 change-orders for one new housing project. Another commented: "We have not been in the hall a year, yet are having to make adjustments on the plumbing and electrical systems." A housing officer remarked: "We have had to spend so much time meeting emergencies resulting from construction defects that there has been no time to do anything else."

2. The largest number of postconstruction problems have to do with mechanical equipment: heating, plumbing, electrical and ventilating. At least eight colleges reported difficulties with their heating systems. At one, when the hot water system was turned on for the first time in cold weather, sections of the building were flooded. In another new project, shower room floors in two of its seven units had to be torn up, new pans laid, and the floors replaced. In a large hall, the ventilating system for the kitchen and dining rooms caused problems for a number of months. In a smaller men's hall, a ventilating system for bath and shower rooms had been overlooked in the original plans.

3. Another sizable category of problems concerns undesirable traffic patterns. This is particularly true in kitchen and dining areas. In one cafeteria, food servers have to cross customer lines to transport food and equipment from kitchens to serving counters.

4. There have been miscellaneous problems. Soap dishes and towel racks were omitted in the shower rooms of one hall. A hollow-tile toilet partition collapsed in another. In one large hall only two of the six incinerators could be used because of their design and construction. At another, trash and incinerator rooms for the hall are located half a story above the level of the loading platforms.

5. Somewhat more serious have been hard-to-correct defects, such as the design of room closets. In one hall, the closets are too narrow to take an ordinary clothes hanger.

6. The administration of one small college failed to coordinate furniture with room size and design. It experienced considerable difficulty in getting the furniture to "fit" when it arrived.

7. In another new building, placement of structural columns makes impossible full opening of the awning type of windows.

Just why is it that student housing is receiving so much attention now? Information obtained from reports, questionnaires and interviews covering 146 institutions provides important reasons. Five are given here.

The first reason, and most obvious one, is increasing enrollments. These are not anticipated enrollments, but students now on campus or trying to enroll. According to administrators at 23 of these institutions, housing shortages have had the practical effect of placing limitations on enrollments.

As a new development, at least 24 of the urban universities have found it necessary to enter the student housing field for the first time or to expand inconsequential facilities because of increased numbers of out-of-towners.

The second reason is that good student housing is a good business proposition, from two points of view: (1) New halls attract students. For at least some of the smaller private colleges, a new hall has acted as a "shot in the arm." (2) Several colleges report that additional housing is an important key to full and more efficient use of their existing instructional plant and, hence, to a further solution of financial problems.

A third reason is the shortage of off-campus living space for students, together with the physical condition of some of the quarters available. Conditions have changed in many college communities. Many of the large rooming houses and old homes have been converted into apartment units or torn down to make way for business expansion. Living conditions in some areas are described as inadequate and substandard. Specific descriptions include overcrowded bath facilities, worn-out plumbing, defective wiring, and poor dining and social space.

A fourth reason is the need to replace temporary, obsolescent or obsolete housing on the campus itself. The off-campus rooming houses have no monopoly on poor living conditions. Some campus living quarters have been described as fire hazardous, structurally unsafe, beyond repair, condemned or seriously deteriorating.

The final reason is increasing interest in the educational implications of the student's living environment. George C. Decker of the U.S. Office of Education summed up many of the statements regarding this point by saying that there is "a growing concern for on-campus living conditions that will permit students and faculty to be more productive."

More specific evidence of the amount of attention being given to student housing is provided by information regarding its status in the country today and the dimensions of residential construction in recent years.

My study of available space applies, in general, to the early part of 1952 and includes more than a thousand colleges and universities. These in-

stitutions represent about 54 per cent of all institutions and they enrolled about 81 per cent of all students in higher education at that time.

A total of 844 institutions reported student housing facilities, ranging widely in normal, or designed, capacity. From these reports, it was estimated that, as of 1952, there was housing space—both permanent and temporary—for approximately 22.9 per cent of all enrolled students. By sex, this percentage covers space for approximately 22 per cent of all single men and 26 per cent of all single women enrolled. In numbers, these percentages represent about 293,000 spaces for men and 196,000 for women.

19 PER CENT INCREASE

My study of new construction includes 292 institutions at which new student housing was under construction or completed. According to estimates made in this study, this new construction has resulted, or will result, in a probable total of about 95,000 new student spaces. This total represents a student space increase of about 19 per cent since 1951. In terms of square feet of floor space, the permanent college residential plant probably has been increased by almost 25 per cent. The total cost of this construction was approximately $313 million.

The picture, however, is not as favorable as some of these figures would suggest. As these new facilities have been added, some temporary facilities have been abandoned; thus, the probable new total of actual and available student spaces is likely a little less than indicated.

We might make several conclusions from these studies:

1. On a nationwide basis, there has been a substantial volume of new college housing construction which has boosted the number of available spaces for students and greatly increased the size of the permanent residential plant. More than 34 per cent of all institutions housing single students have engaged in new construction since 1951.

2. Considerably more attention is now being given to housing single men.

3. In spite of the volume of new construction, there has been no overall gain as yet in the total percentages of students housed.

Of great interest is the different types of new residence halls being built in various parts of the country. Here are a few unusual projects:

1. Clemson College has just completed a new project for nearly 2000 men, using the lift-slab method of construction. Reportedly, this method saved about $400,000 on costs and a minimum of six months in time. The student activities section of the project is air-conditioned.

2. An interesting feature of the new Tulane halls in New Orleans is the use of exterior corridors of the balcony type as means of access to student rooms. This design is also being used in Utah and California.

3. Florida State University has constructed an 11 story men's hall with built-in double-deck beds that form part of the room partition walls. The top bed opens into one room and the bottom bed into the next.

4. The type of hall divided into vertical sections, with no interior access between floors, seems to be pretty much a design of the past. One reason is a change in some building codes within a few states which require occupant access to two stairways. At Johns Hopkins and the University of Connecticut, among others, code requirements have been met by means of a special type of door that connects two sections on each floor level. The door latch is encased in glass, to be broken in event of fire.

5. In Utah, at Brigham Young, an apparently highly successful new project for women includes 16 "group living residences." There are 10 living units for six students each per building. Each unit contains three double bedrooms, private bath, and kitchen-study. Much more compact apartment units make up a new hall for men at the Cedar City branch of the Utah State Agricultural College.

6. Administrators at Knox College, Galesburg, Ill., are well satisfied with an apartment-like floor plan for their new men's hall. Without a kitchen, each unit contains a living room, bath and rooms for eight students. Because of operating costs, units in a proposed new hall will be designed for 12.

7. Purdue University has experimented with prefabricated, one-story, private houses arranged in a motel-like court. The success of this plan has resulted in a new project made up of several courts to provide total space for more than 800 men.

8. In several new projects, a separate or semiseparate building for food services and recreational activities is located in a central position around which are placed buildings containing student rooms. At Michigan State, the activities building is completely separate. At the State College of Washington, buildings are joined by ramps and stairs. At the University of Oregon, the food service and lounge areas form a core with partially separated halls on three sides. One large kitchen serves a number of smaller dining rooms.

9. The new nine-story hall at the University of Michigan illustrates the way in which a large building structure can be internally divided into subhalls. This building is the equivalent of seven halls, housing approximately 160 students each.

SIZE NOT MOST IMPORTANT

Size is not the most important consideration. What is important, however, is the internal arrangement of space that will permit the formation of small and identifiable living groups. Median capacity of new women's halls has now reached the figure of 150, often described as the "preferred" or "ideal" size. In the case of new men's halls, the median capacity size is 155.

The amount of study-bedroom space now being provided conforms fairly closely, on the average, to various recommendations that have been made in the past. In fact, space provided in some new halls is considerably above these recommendations. At the same time, bedroom space per student in other halls is less than that once recommended for jail cells:

1. In the case of 88 projects for men, the average square feet of floor

space per student is about 105 square feet, with a high of 140 and a low of 58.

2. In the case of 35 projects for women the average square feet of floor space per student is about 114 square feet; high is 162; low is 79.

3. One conclusion to be drawn from available information is that the range in space allocation per student is excessive from the point of view of good planning and efficient space use.

Regarding per student costs, for the men's projects, the average is about $3200, with a high of more than $5000 and a low of $1075. For the women's projects, the average is $3500, with a high of almost $6000 and a low of $1800.

These projects include halls with and without food service. Providing food service space, without equipment other than that classified as "fixed," will add from about $170 to about $265, on the average, to per student construction costs. These figures, of course, represent only a small portion of the total cost involved in equipping the kitchen and dining room.

STUDY SPACE DISTRIBUTION

Because space is an expensive commodity, I have attempted to study space distribution in various new halls. Some administrators would be amazed to discover the relatively small percentage of total floor space allocated to study-bedrooms. For example, in one men's hall only 28 per cent of total space is reported to be so used; in one women's hall, only 31 per cent. The median percentages, incidentally, are: for men, 50.4 per cent; for women, 47.9 per cent.

Ingenuity in the arrangement and distribution of space might be able to give us more for our money. Space can be more efficiently used which, in turn, might lead to some savings in costs. For example: In 45 projects for men, the median percentage of total space occupied by corridors and stairs is almost 18 per cent. In one project, 26 per cent of the total space is so used. On the other hand, only 7 per cent of total space is required for corridors and stairs in another project. This range is excessive and suggests some inefficiency in space distribution. More thought should be given to the functional use of space. In planning, it may be that use per square foot per day will become almost as important as cost per square foot.

Planners have been prone to design a new hall on two principal bases: (1) What has been done there in the past and (2) what other colleges are doing. In my opinion, planners should consider a third point: What functions do we want to emphasize in this new hall?

Answers to this question may lead to the reduction in or elimination of certain fringe benefits. The typical hall usually contains a large main lounge. With few exceptions, I have found that this lounge receives a minimum of use. On the other hand, snack bars and recreation rooms receive maximum use, under certain conditions. With judicious planning, it may be that the functions performed by a main lounge and by the recreation room can be combined, in some cases. This suggestion does not imply the elimination of smaller, more informal lounges, properly located and equipped.

One of the weaknesses in planning today is delay in the formulation of policies until after construction is started or the new hall is occupied. This delay may arise from indecision regarding a basic question: What are to be the purposes of our student housing? Shall it be planned to provide shelter only or, in addition, to implement important educational purposes?

The general answer is rather obvious for the majority of colleges and universities. Unless the building is going to serve some educational purpose, there is a real question as to the justification for expenditure of large sums of private or state money to erect student living quarters on the college campus. If shelter is the only purpose, administrators should endeavor to work with private investors in the construction of privately operated lodgings off the campus.

Few colleges have touched the educational potentials of the residence hall. There are at least four possible reasons: (1) some uncertainty as to what these purposes should be, (2) administrative organization, (3) physical conditions in the hall, and (4) half-way measures.

FIVE MAJOR ELEMENTS

We should consider briefly five major elements of the planning process, all of which are closely interrelated. They are: (1) financing the hall, (2) scheduling the project, (3) selecting the planners, (4) gaining pertinent information, and (5) achieving economy.

1. The approach to the financing plan will be rather strongly affected by decisions reached regarding the purposes of proposed new construction. Statements that residence halls are now self-supporting depend upon administrative interpretation of the term "self-supporting."

From my observation, three considerations are involved: (1) What are the sources of construction funds, and what is the amount to be amortized? (A few halls, for example, are almost debt-free to begin with. These should be self-supporting.); (2) What kinds of furnishings and services have been considered acceptable by a particular institution? (3) What are the budgeting procedures? (Certain administrative and maintenance salaries may be charged against the general budget. Utility costs may be absorbed by other departments. There may be no budget item for depreciation of the structure or replacement of equipment.)

2. A common problem in planning is proper scheduling of the project. There are definite steps to be taken: (1) Determine the desired occupancy date. (2) Estimate the time required for furnishing and cleaning and for checking mechanical equipment. (3) Estimate the required construction time. For standard permanent buildings with a designed capacity of 100 or less, the usual time is about 10 months. For buildings with capacities of from 100 to 200, the usual time is from 12 to 15 months. For those with capacities of more than 200, the time may run from 18 to 24 months. (4) Estimate the time needed for advertising and bidding. This may take

from one to two months. (5) Estimate the time to be consumed in preliminary planning, the preparation of tentative drawings, and the preparation, checking and approving of final plans and specifications. This may take from six to 24 months.

3. The selection and use of appropriate planners have been sources of difficulty. Make sure that those who have the knowledge and who are going to operate the new hall are included in the planning. Make sure a competent architect with experience in designing residence halls is employed, and include him in the early stages of the planning. Some institutions have profitably included a contractor in early planning stages.

The housing officer, if competent, should have primary responsibility for the planning process. For example, all construction change-orders should clear through him, rather than through the architect. Money has been saved by this procedure.

Planning committees should not be too large. In early planning stages, this committee should consult with all interested officers in the college. However, once construction is under way, responsibility for planning should be concentrated.

4. Gaining pertinent information in planning includes consultation not only with deans but also with housekeeping and maintenance personnel—the people who do the day-to-day work. Student opinions may also be solicited. Mock-up rooms are sometimes a vehicle for student criticism. The opinion of students should be considered with some caution, as their preferences are naturally based on their experience. Hence, they are unlikely to be able to give advice on alternative possibilities if one possibility is outside of their experience.

MAINTAINING RECORDS IMPORTANT

Maintenance of records is an important source of information. For example, summaries of the frequency and nature of required repairs to the heating system may give some indication of its adequacy, thus influencing the decision on duplicating it in the new structure. A good cost accounting system will be of material assistance in future planning.

Virtually all of the elements of the planning process have a part in achieving economy. The architect selected is likely to influence considerably the realistic economies made in planning the structure. Materials and equipment should be selected on the basis of durability and the amount of maintenance they will require. This means, in effect, that quality materials are likely to be the most economical in the long run. Make sure cost estimates are both accurate and inclusive.

I have emphasized the process of planning because it is becoming both an art and a science. The way in which it is conducted may have a considerable bearing on the efficient financing of new construction. It may determine when or if you can afford to build a particular type of structure. Even more, what we are planning now will mold the operating patterns of new halls for at least the next 40 years. We can scarcely afford to be wrong.

FUTURE PLANNING

What about future planning? Tied up with the answer are broad administrative decisions regarding the impending tidal wave of students. Will colleges and universities, especially the private ones, develop means for the more efficient use of their presently available staffs and facilities, denying admission to additional students when the optimum of efficiency has been reached? Will present institutions, especially the state supported ones, expand to meet all requirements? Will numbers of new colleges and universities be established? Will the community college idea be put into practice? Or will we attempt to educate partly through organized educational television?

It seems most likely that a number of these possible courses of action will be followed in different parts of the country, but I suspect the tendency will be for presently organized colleges and universities, both private and state, to expand to meet the requirements, once the pressures become sufficiently strong. It may be that new community colleges will be created. However, the tendency is to greater consolidation of schools rather than greater division.

How will these courses of action affect requirements for student housing? Increases in the efficiency of the present instructional plant and institutional expansion will inevitably require more housing facilities. We cannot count too much on off-campus housing as it now exists in many places. Already there is a shortage of acceptable living space off campus. This means that proportionately more new space must be built on campus than has been the case in the past.

Additional campus housing means more construction funds. For the country at large, the U.S. Office of Education has estimated that, in terms of current costs, about $2 billion will be needed to provide, by 1965, an additional residential plant to accommodate about 50 per cent of the anticipated enrollment increases. Such a program means expenditures of about $200 million per year for the next 10 years, or, roughly, about a two-third's increase per year over present construction. Even a program of this dimension, it is said, would probably not change substantially the percentages of enrolled students now being housed. Perhaps we need to remind ourselves that 1965 is just a short 10 years away. While the apparent requirements sound almost impossible, it seems likely that the job can be done if taken a step at a time and if resourceful planning procedures are followed.

Appropriate future plans will grow out of efforts to improve upon efficiency and habitability. An analysis of these two important characteristics may perhaps most profitably be made in terms of the major elements of the physical environment of the hall, namely, space and the furnishings or equipment placed within it; provisions for privacy and sociability; illumination and color; sound, as created by persons and by mechanical equipment, and temperature and ventilation.

ORIENTATION IMPORTANT

There are indications that the orientation of a building with reference to the points of the compass can have a marked effect on interior temperatures. According to one architect, proper orientation alone can give to a building a temperature equivalent to that found 300 to 400 miles north or south of its existing location. This has considerable meaning not only to personal comfort but also to the amount of heat required to maintain proper building temperatures. In the case of air conditioned halls, building orientation may increase or decrease the volume of conditioning required.

This example points to the need to reexamine the kinds of residence halls we are now building and to ask ourselves two questions: Is our present hall efficient as a structure? And, what effect is it having on the students who live in it?

Smorgasbord Goes Collegiate—

and proves to be as practical as it is popular

DOROTHY STOUT
Columbia, Mo.

FOR MORE THAN A YEAR, THE UNIversity of Missouri Memorial Student Union has made an outstanding success of a monthly event that Earle W. Christman, managing chef, believes might well be a coming thing with other colleges across the country.

The union's smorgasbord on Sunday evening from 5:00 to 7:30 offers candlelight atmosphere, attractive decoration, and a tempting array of foods. The response to such an appealing combination has been enthusiastic from the start. Students and faculty members pack the grill room every time (an estimated average of 175 persons), and it seems the union's only problem is a complaint now and then from customers who dislike waiting in line, yet refuse to leave.

Surprisingly enough, the boards pose no real problems in the food service operation or budget. While many people think a smorgasbord calls for foods that run into fancy figures and require extra hours to prepare, the union finds the simplest fare the most popular.

In fact, the food is often the same —dressed up a bit, perhaps with a special sauce—that is offered in the cafeteria. Several times there have been unusual desserts, but the customers generally prefer sherbet or ice cream. The foreign names may baffle some of the diners, so they're told that *köttbullar* are really meat balls, or the *sur ost*, cottage cheese.

Smorgasbord has another virtue, budgetwise, because it offers the possibility of serving leftovers in appealing fashion, especially in French dishes. As to the quantity of food required, Mr. Christman finds the average diner eats less for the standard charge of $1.65 than he would ordinarily get for the same price in the cafeteria. A few people "go hog wild," but most simply take small helpings of everything.

The secret of success with smorgasbord lies in decorating attractively and preparing foods that look appetizing. "You feed people through their eyes instead of their stomachs," as Mr. Christman puts it. He starts work on the board about 9 o'clock in the morning. The table decorations require time and a bit of imagination, but are quite inexpensive. Materials often are reused or are borrowed for the occasion.

In June, for example, decorations centered on a graduation theme with mortarboard, tassels, diplomas and graduation announcements (borrowed from a bookstore). For Easter, the centerpiece was a huge egg made with chicken wire, covered with chocolate frosting, and surrounded by red roses

Because Earle W. Christman, executive chef at the University of Missouri, believes that much of the success of a smorgasbord lies in attractive decorating, he spends time and imagination on his table decorations.

Mexican Smorgasbord

Turkey molé
Fried rice
Fried beans
Chili meat balls
String beans au gratin
Shrimp, hot sauce
Ham and cheese platter
Mexican slaw
Fresh fruit
Kidney bean salad
Spring salad
Spiced apples
Spiced peaches
Pineapple slices
Deviled eggs
Tuna fish mold
Fruit cocktail
Pineapple lemon
Tomato and cucumber slices

Pickled beets
Olives, green and ripe
Green onions
Carrot sticks
Celery hearts
Radish roses
Roquefort dressing
French dressing
Thousand island dressing
Assorted canapés
Pickled herring in wine sauce and roll mops
Pan rolls, small
Potato chips
Crackers
Sugar wafers
Dessert: chocolate ripple
Beverage
Centerpiece from horticultural school: Calla lilies in Mexican vases, broad green leaves, Mexican pancho undercovering

German Smorgasbord

Sauerbraten
German sausage and kraut
Hogshead cheese
Blood pudding
Liver pudding
Limburger and salty rye bread
Schmierkäse
Spiced apples
Spiced apricots
Pickles and onions
Pickled beets
Deviled eggs
Anchovies on toast strips
Sardines on toast strips
French dressing
Roquefort dressing
Mayonnaise
Mustard
Ketchup
Potato chips

Hot rolls
Assorted crackers
Ham salad
Egg salad
Coffee
Tea
Milk
Apple cake (dessert)
Tiny pan rolls
Celery fans
Carrot strips
Radish roses
Chef's salad
Coleslaw
Fresh fruit salad
Potato salad
Tomato aspic
Vegetable mold
Fruit molds
German cucumbers
Sliced tomatoes and onions

Swedish Smorgasbord

Köttbullar (meat balls)
Skalaperad potatis (escalloped potatoes)
Gröna bönor mäd champinjoner (green beans and mushrooms)
Sil salat (herring salad)
Canapés
Assorted cheese
Inlagd sil (pickled herring)
Sur ost (cottage cheese)
Fyldaägg mas parsilja (stuffed egg-parsley garnish)
Skuren kall tyngs (sliced cold spiced tongue
Rödbettor (pickled beets)
Rättikor (radishes)
Knacke brod (hardtack)
Karameller (sugar candy)
Kaffe (coffee)
Sliced tomatoes

Easter Theme

Bacon-wrapped stuffed olives
Shrimp bowl, hot sauce
Herring with wine sauce
Au gratin potatoes (village style)
Baked ham
Asparagus spears with lemon butter
Colored hard boiled eggs
Chicken livers sauté
Potato salad
Chef's salad
Coleslaw
Tomato aspic with celery dressing
Fruit salad
Spring gelatin salad
Russian dressing
French dressing
Schmierkäse
Mustard celery

Spiced crabapples on silver tray with parsley
Corn relish
Green onions
Applesauce
Pan rolls
Olives, ripe and green
Potato chips
Crackers
Pickles
Tomato slices
Cucumber slices
Orange sherbet with tinted green coconut
Bread bunnies
Jelly beans
Beverage
Centerpiece: Large egg made of chicken wire, chocolate frosting, with decoration of red roses and green leaves

and green leaves. For a Mexican board, the centerpiece was an arrangement of calla lilies in Mexican vases, flanked with green leaves on a pancho.

Although smorgasbord is traditionally Scandinavian, the union achieves variety by using French, German, Italian and Mexican, as well as Swedish, boards. For a short time last year, smorgasbord was served every Sunday, but the timing proved too close for the staff to plan something different each time. Too, diners seem to appreciate the occasions more when they're a bit rarer. Now the schedule is the last Sunday of each month, September through May.

The only promotion has been posters in the union building and tent cards on the cafeteria tables, but the word travels fast when a food service *makes* news.

Not all of the diners realize that smorgasbord differs from buffet service. Most of them sample everything the first time around, instead of selecting from the fish dishes first and then returning to the board for hot delicacies and again for salads and cheese. (Dessert and choice of beverages are served at the individual tables.) But customers still think of the occasion as something more special than buffets.

The school tray

Whether your guests eat from a tray or dine on damask, you can pay no greater compliment to their taste than to serve them fruits packed for you by Sexton. Our on-the-spot selection of choice, tree-ripened fruit results in a firm yet tender lusciousness and an orchard-fresh flavor that make for satisfying desserts or tempting salads. Select your needs from the greatest inventory ever assembled for the Institutional Market.

Texas Christian University, Fort Worth, Texas

Sexton Quality Foods

JOHN SEXTON & CO., CHICAGO, 1955

NEWS

Alumni Giving Influences Business Support . . . More Students Prepare for Teaching and Engineering . . . Foundation Head Advocates Tuition Hike for Underclassmen . . . A. C. E. Opposes Enrollment Restrictions

Extent of Alumni Giving Determines Annual Support From Business

NEW YORK.— Alumni giving has become a pivotal factor in financial strengthening of colleges and universities, the Council for Financial Aid to Education, Inc., asserted in releasing a cost-of-education survey report of 753 American colleges and universities.

The success with which an institution of higher education attracts annual support from its alumni may determine whether a college ends the year in the blue or red, and the extent of alumni giving to institutions that trained them is a criterion used by an increasing number of corporations to determine their support.

Students at privately supported colleges and universities pay from 40 to 60 per cent of the costs of educating them; students of state supported institutions pay 20 per cent of the educational dollar, the council's survey showed. According to a tabular summary ending the report, the gap is widening between income from tuition and institutional costs in spite of tuition increases.

Rising costs of education have far outstripped tuition increases in all institutions of higher education except the professional and technological schools, according to the survey. These specialized schools increased their tuitions roughly in direct proportion to cost increases.

The cost of educating each full-time student in the privately supported colleges and universities is shown in the accompanying table.

The highest average cost of operations was at the 184 nondenominational independent liberal arts colleges which average $1060 per full-time student per institution, and at the 80 professional and technological schools which averaged $1065 per full-time student per institution.

Privately supported colleges and universities therefore attach increasing importance to the annual giving by alumni, the council stated in the survey report. Gifts to the alumni fund are a form of repayment of a loan by society, it said. Not only are these a means of supplying a person's alma mater with badly needed funds for current operations but they are a means of repaying the costs of education, the survey report stated.

Cost Increases in Private Colleges for Each Full-Time Student for Five-Year Period Ending 1953-54, and Tuition Increases for Same Schools for Five Years Ending 1953-54*

Type of Institution	*No. of Institutions*	*Rise in Costs*	*Tuition Rise*
Catholic colleges	84	39%	29%
Independent universities	66	45	30
Independent liberal arts colleges, nondenominational	184	46	24
Church related colleges, non-Catholic	125	49	23
Church related universities, non-Catholic	26	58	26
Catholic universities	21	61	27

* In comparable periods costs at 113 tax supported colleges rose 44% and tuition only 25%. At 54 tax supported universities costs rose 85% and tuition rose 30%.

Dr. Raymond Walters Reports Trends in Fall Enrollments

CINCINNATI.—Recruits for the depleted ranks of school teaching and of engineering "are on the way in encouraging numbers," Dr. Raymond Walters, president-emeritus of the University of Cincinnati, said here recently in reporting trends in current fall enrollments on American campuses.

Dr. Walters, who retired August 31 after 23 years as Cincinnati president, released reports of estimated attendances of full-time students as compared with a year ago in 658 approved universities and four-year colleges.

Complete reports for both full-time and part-time students in more than 800 institutions on approved lists of regional and national associations will be compiled by Dr. Walters for his 36th annual December enrollment study for *School and Society*.

"The smaller colleges of arts and sciences report slight increases," Dr. Walters said. "As to collegiate attendance as a whole, the trend is briskly upward—a portent of tremendous enrollments to come a half-dozen years hence.

"It will encourage those at the approaching White House Conference on Education to learn that, while the teaching supply will be grossly inadequate for the needs, there is an upward trend in freshman registrations and in total enrollments in independent teachers college and those within state, municipal and private universities."

Among teachers colleges reporting comparable 1954 and 1955 fall enrollments, nine out of 10 show increases of from 5 to 54 per cent. Only a few report either no changes or slight decreases.

Comparable 1954 and 1955 enrollments in engineering schools disclose a distinct advance. There were no de-

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Naturally, any movie looks its best when you show it in total darkness. But when you want to keep some light for note taking—or when you must put up with imperfect room darkening—you can *still* keep your sound movies brilliant with a *new* Kodascope Pageant Sound Projector. You can enjoy comfortably flicker-free silent-speed projection with the same projector, too. Here's why . . .

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Until recently, 16mm. sound projectors gave you a choice of *either* extra light power *or* two-speed versatility. Then Kodak engineers perfected the Super-40 Shutter—an ingenious device which can project more than 40% *more* light at sound speed than can standard shutters, and can also deliver smooth, standard-light silent projection . . . *automatically*.

This shutter is now built into every Pageant audio-visual model. What's more, it brings you two-in-one versatility at *no increase in price* over the previous Pageant models!

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The Super-40 Shutter is far from the only important exclusive Pageant benefit. Pageants are also permanently pre-lubricated to bypass the danger of improper oiling, main cause of projector breakdowns. Pageants have built-in field-sharpening elements that keep your pictures sharp over the whole screen area. And Pageant Fidelity Controls help you get the most from any optical sound track, regardless of its position.

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The new Pageant projectors with Super-40 Shutters are available with either 7- or 15-watt outputs, and 8″ or 12″ speakers. To choose the model best for your needs, ask your Kodak Audio-Visual Dealer for his experienced advice. He will give you a demonstration and complete details with no obligation to you. If you prefer, send the coupon for a catalog first.

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New Signet Filmstrip Projectors give top performance—even with worn or damaged films

To deliver smooth, quick, reliable performance—even with damaged film—all Model 2F Kodaslide Signet Filmstrip Projectors now have a new, improved, enclosed film-advance mechanism. (This can be removed, if you wish, for standard 2 x 2 slide presentations.)

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creases among independent technological schools reporting, only two with the same enrollments as last year, and gains of from 5 to 25 per cent in all others.

"This is gratifying," Dr. Walters commented, "since we now know Soviet Russia is probably turning out engineering graduates at a rate two and a half times greater than that of the United States."

Of 384 independent colleges of arts and sciences—most of them smaller institutions—26 reported slight losses; 62, no change; the remainder, gains of from 5 to 34 per cent.

Albany School of Nursing Reduces Tuition

ALBANY, N.Y.—Extensive cuts in tuition costs and other charges for the Albany Medical Center School of Nursing have been announced by Helen M. Flicker, director of the school.

Under the new schedule, effective with the class entering in March 1956, tuition will be reduced $135 and the student will no longer be required to pay for her meals during the six months of preclinical training. A total benefit to the student nurse of approximately $435 over the three-year period of study is anticipated.

Costs under the new plan will be commensurate with those of other diploma nursing schools of comparable standing in New York State. The total tuition will be $425, of which $225 will be payable on entrance and $100 at the beginning of the second and third years of training.

According to Dr. Thomas Hale Jr., director of Albany Hospital, these changes are part of the Albany Medical Center's comprehensive plan for encouraging recruitment of nurse students for training in areas where the nursing need is most acutely felt today. Dr. Hale added that the affiliation with Russell Sage College would be continued for nurse students who wished to continue studies for a college degree.

Discuss Colleges' Problems in New Radio Series

COLUMBUS, OHIO.—The presidents of some 30 colleges and universities throughout Ohio are discussing the critical problems arising from mounting student enrollment on a new weekly radio series that started October 1 at 11:45 a.m. over WOSU.

Called "Meet the President," the series is being presented as a means of giving Ohio listeners a better understanding of the $64,000 question in higher education: How can the schools provide college training for an ever-increasing number of students?

Guest on the initial program was Dr. George A. Bowman, president of Kent State University. Administrative heads of the other state supported schools, as well as the municipal, private and church related institutions, are appearing on subsequent programs.

During a 15 minute interview, each of the participating presidents is called upon to discuss increasing enrollments and other significant issues as they pertain to his own institution.

The interviews are conducted by Dr. William H. Ewing, program supervisor of WOSU, and by Dr. Robert Holsinger, assistant supervisor. The bureau of public relations at Ohio State is cooperating with the university station in presenting the series.

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Cole's Jr. High School, Ashland
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Centre College, Danville
Estill County High School, Irvine
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State Teachers College, Moorhead
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School Dist.

OHIO
Akron Public Schools, Akron
Grandview High School, Columbus
Euclid St. High School, Cleveland
Hamilton Public Schools, Hamilton
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U. S. Army, Fort Sill, Lawton
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OREGON
High School, Baker
State College, Corvallis
Jr. High School, Nyssa
Schools, Parkrose
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PENNSYLVANIA
Spring Summerhill School, Conneautville
E. Stroudsburg High, E. Stroudsburg
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Eau Claire High School, Columbia
Brewer High School, Greenwood
Y.M.C.A., Greenwood
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City Auditorium, Chamberlain

TENNESSEE
Dandridge High School, Dandridge
Bearden High School, Knoxville
Central High School, Murfreesboro
David Lipscomb College, Nashville
Franklin Co. High School, Winchester

TEXAS
Amarillo Jr. College, Amarillo
Sam Houston Jr. High School, Amarillo
Burkburnett High School, Burkburnett
W. B. Ray High School, Corpus Christi
Rice Institute, Houston
Kilgore Public Schools, Kilgore
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NEWS

Speaker Advocates Higher Tuition for First Two Years

LEWISBURG, PA. — Dr. Charles L. Horn, president of the Olin Foundation, has suggested that colleges should charge more for the freshman and sophomore years to discourage students who just "come along for a free ride."

The suggestion was made at recent dedication services of the new F. W. Olin Science Building at Bucknell University during the annual convocation at the university.

Speaking on "A Layman Looks at the Colleges," Dr. Horn made the suggestion in view of the large percentage of students who drop out of school at the end of the freshman and sophomore years.

Because a college has to pay for a large share of each student's education in addition to what he actually pays, Dr. Horn believes this will help keep college budgets out of the red as well as discouraging students who have no intention of completing college. Before asking foundations for more money, colleges should look realistically at this matter, the speaker advised.

Dr. Horn also had a suggestion for college alumni. They should be asked to pay back a portion of what the college has spent on them, he declared.

"If I were to run a college," he said, "the first thing I would do would be to ask every freshman to pledge to pay $1000 to the college, to be paid over a period of 10 years. This sum would be put in an endowment fund, the interest of which would go to pay for other persons who want to get an education.

"I suppose that is revolutionary," he added, explaining that not every person who goes to college should be there, and that every young man or woman who goes to college owes the institution he or she attended something else besides good will.

MacMurray to Found Companion College for Men

JACKSONVILLE, ILL. — MacMurray College announced at a Founders' Day celebration on October 7 a board decision to establish a companion college for men. MacMurray has been solely a women's college for 109 years.

At present, the college enrolls 466 women students from 40 of the 48 states and 20 students from foreign countries.

The chairman of the board's development committee, which presented the resolution favoring creation of a college for men, is Milburn P. Akers, executive editor of the *Chicago Sun-Times,* whose great-grandfather, Peter Akers, in 1845 proposed establishment of a college for women at Jacksonville.

The resolution of the MacMurray trustees provides that the men's college be legally, administratively and academically responsible to the board of trustees of MacMurray College, and that the president of MacMurray College be president ex officio of the men's college. The curriculums of the men's and women's colleges will be coordinated and integrated to a large extent, but the curriculum of the men's college will not duplicate the curriculum now offered by Illinois College in Jacksonville any more than is necessary. The physical plant, facilities, equipment, faculty members, and ad-

Note the remarkably clean, modern lines of these convenient, efficient laboratory desks and tables at the University of Buffalo's Medical and Dental School. Logically, many students trained here will eventually use Hamilton dental and surgical equipment in their own offices. (Most doctors and dentists do!)

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ministrative staff of MacMurray College and the men's college will be interchangeable to the degree deemed advisable by the president of the two colleges.

Florida's Governor Heads S.R.E.B. for 1955-56

POINT CLEAR, ALA.—Gov. LeRoy Collins of Florida was elected 1955-56 chairman of the Southern Regional Education Board here during the board's annual meeting on October 18. State Representative George Payne Cossar of Tallahatchie County, Mississippi, was elected vice chairman of the S.R.E.B., and Chancellor M. T. Harrington of the Texas Agricultural and Mechanical College System was named secretary-treasurer.

Governor Collins succeeded Frank G. Clement, governor of Tennessee, in the chairmanship. He was a member of the steering committee of the S.R.E.B.'s legislative work conference as a Florida senator in 1953, and has been active in the various programs of the board for many years. He also serves on the executive committee of the Southern Governors' Conference. A Tallahassee lawyer, Governor Collins graduated from Cumberland University in Tennessee in 1931.

Representative Cossar of Mississippi, the board's new vice chairman, has been a member of the Mississippi legislature since 1944, and served as speaker of the 1955 legislative work conference of the S.R.E.B. Representative Kenneth Cagle of Louisiana was the 1954-55 vice chairman.

Chancellor Harrington, who is serving his fifth year as one of Texas' representatives on the S.R.E.B., succeeds President Oliver S. Willham of Oklahoma A & M. He has been connected with the Texas institution since 1924, became president of Texas A & M College in 1950, and was selected chancellor of the College System in 1953.

The Southern Regional Education Board met here on the opening day of the Southern Governors' Conference. The board is composed of legislators, governors, educators and private citizens of 14 Southern states which signed an interstate compact in 1949.

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DePaul Given 18 Story Office Building in Chicago

CHICAGO.—The gift to DePaul University, Chicago, of the Kimball Building, an 18 story downtown office building, including fee ownership of the land on which it stands, was announced last month by the Very Rev. Comerford J. O'Malley, president of the university. The building will be known as the Frank J. Lewis Center of DePaul University.

The gift, the largest in DePaul's history, is the largest of several benefactions made by Frank J. Lewis, Chicago manufacturer and philanthropist, in 30 years' association with DePaul. The building was purchased by the Frank J. Lewis Foundation from a pioneer Chicago piano firm.

In commenting on the gift, Father O'Malley stated: "The keystone of the college's contribution to Chicago has been a downtown center. We like a Loop location, and apparently our students do too, for the vast majority of our 125,000 alumni over the past half-century have attended our downtown schools." Five of the university's

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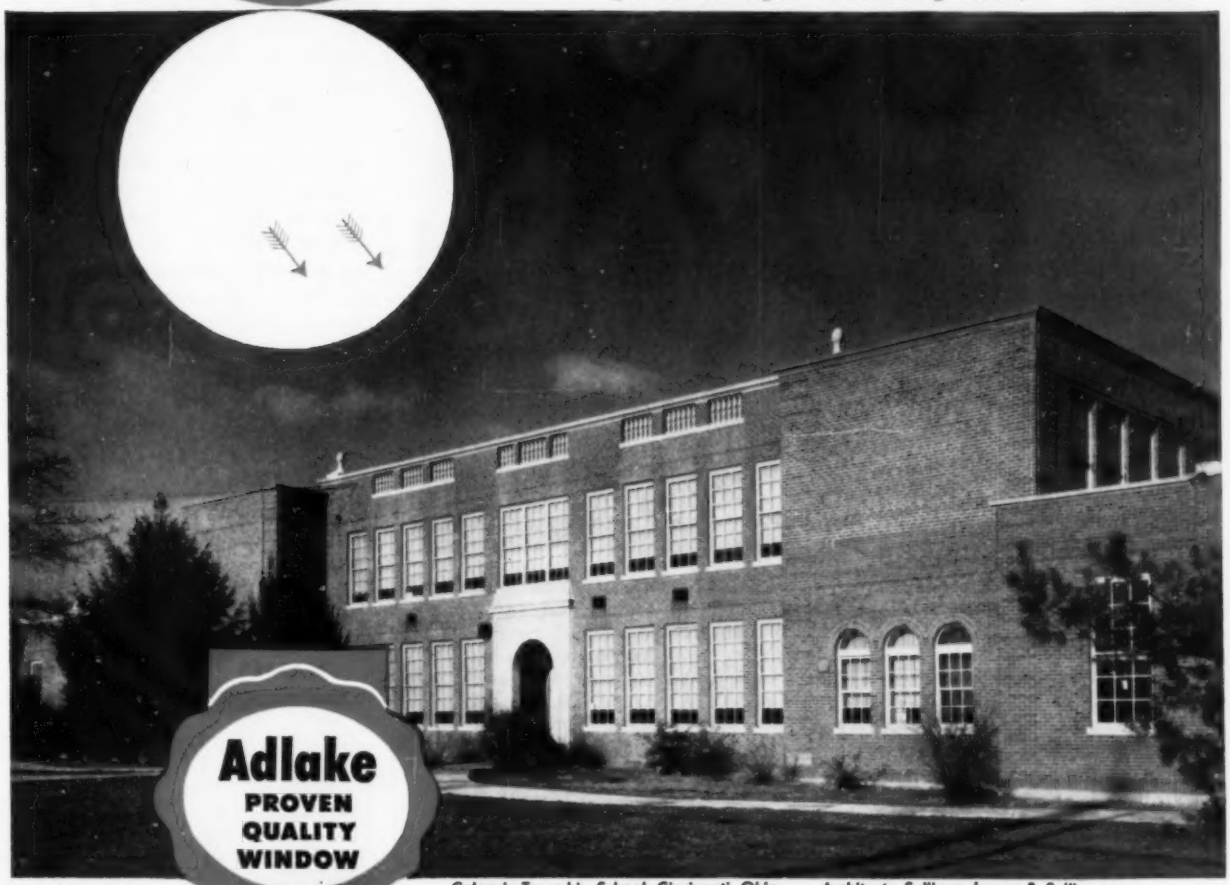

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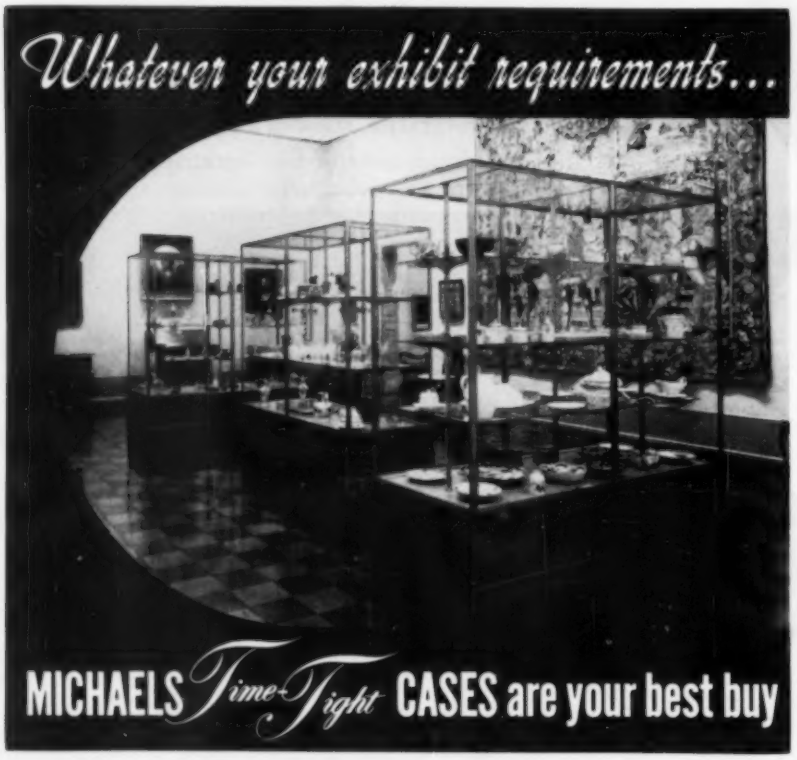
seven major divisions, including 6482 of the current 7701 students enrolled, will now be located in the new Frank J. Lewis Center.

The five divisions are: (1) college of law, largest in Illinois, with a day and evening enrollment of 552; (2) graduate school, with 928 students in liberal arts and science, music and commerce divisions—three-fourths of them teachers in Chicago's public and parochial schools; (3) college of commerce, largest Catholic collegiate school of business in the United States, with a current day and evening registration of 3334; (4) university college, providing evening programs toward degrees in the liberal arts and sciences and adult education opportunities without regard to degrees, with an enrollment of 1434, and (5) school of music, with 284 students, mostly in the day division, and a preparatory department of approximately 200 grade and high school students readying for music college entrance.



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A.C.E. Would Not Restrict Enrollment

WASHINGTON, D.C.—Citizens who advocate that college education be limited to a relatively small elite find no favor with leaders of the American Council on Education.

Addressing the 38th annual meeting of the council here October 7, President Arthur S. Adams characterized such individuals as "advocates of a European tradition that was discarded by the American people because it did not meet the requirements of the kind of society we were developing on this continent.

"We also already know," he said, "that there are 100,000 or more young people a year who, on all the evidence available, are highly qualified to go on to college when they graduate from high school and yet do not do so. If enrollment is restricted, it seems clear that we shall increase the losses to our society and to our economy of those who do have high quality while we are trying to keep out those not so well qualified. But more than this, arbitrary restriction of enrollment of qualified applicants would be directly contrary to the cardinal point of our national belief in the importance of the individual human being."

Elected to the chairmanship of the council is Katharine E. McBride, who has been president of Bryn Mawr College since 1942.

More than 650 college and university leaders attended the meeting, representing 1104 educational organizations and institutions.

The banquet was addressed by Herold C. Hunt in his first major address since assuming the office of undersecretary of the Department of Health, Education and Welfare.

NAMES IN THE NEWS

R. W. Sippola

R. W. Sippola, formerly business manager of Marietta College, Marietta, Ohio, is the new financial secretary of Cornell College at Mount Vernon, Iowa. His appointment became effective early in the fall.

Dr. Fred C. Ford, associate director of personnel, University of Pennsylvania, has been appointed director of

(*Continued on Page* 68)

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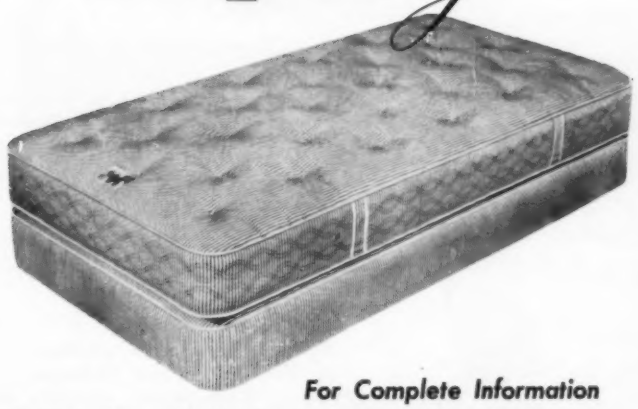

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Canadian Association of University Business Officers

President: A. G. Rankin, University of Toronto; secretary-treasurer: E. A. Wilkinson, Hart House, University of Toronto.

Central Association

President: C. C. DeLong, University of Illinois; secretary-treasurer: T. N. McClure, Knox College.

Convention: May 6-8, University of Notre Dame, Notre Dame, Ind.

Eastern Association

President: W. R. Hendershot, New York University; secretary-treasurer: Irwin K. French, Wellesley College.

Convention: Dec. 11-13, Chalfonte-Haddon Hall, Atlantic City, N.J.

Southern Association

President: Wendell M. Murray, North Carolina State College; secretary: C. O. Emmerich, Emory University.

Western Association

President: Gerard Banks, College of Puget Sound; secretary: Kenneth A. Dick, University of Idaho.

National Federation of College and University Business Officers Associations

President: Nelson A. Wahlstrom; University of Washington; vice president: Henry Doten, University of Maine; secretary-treasurer: C. H. Wheeler III, University of Richmond.

American College Public Relations Association

President: Bradford D. Ansley, Emory University; executive secretary: Marvin W. Topping, 726 Jackson Place, N.W., Washington 6, D.C.

Association of College Unions

President: Frederick Stecker, Ohio State University; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

Convention: April 8-11, Purdue University, West Lafayette, Ind.

College and University Personnel Association

President: Arlyn C. Marks, State University of Iowa; secretary-treasurer: Elwood C. Clark, Rutgers University; executive secretary: Donald E. Dickason, University of Illinois. Permanent headquarters, 809 S. Wright St., Champaign, Ill.

Convention: Aug. 5-8, Cornell University, Ithaca, N.Y.

National Association of College Stores

President: Carl Birdwell, A&M College of Texas, College Station; executive secretary: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.

Convention: April 15-18, Statler Hotel, Boston.

National Association of College and University Housing Officers

President: F. C. McConnell, University of Texas; secretary-treasurer: Ruth N. Donnelly, University of California, Berkeley.

National Association of Educational Buyers

President: D. R. Kimrey, University of Oklahoma; executive secretary: Bert C. Ahrens, 1461 Franklin Ave., Garden City, N.Y.

National Association of Physical Plant Administrators of Universities and Colleges

President: C. B. Jensen, University of Wyoming; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

"People often are hoggish about paper towels."

WITHOUT realizing it they'll use from two to four single fold towels just for drying.

— wasting as much as 40 inches of paper toweling.

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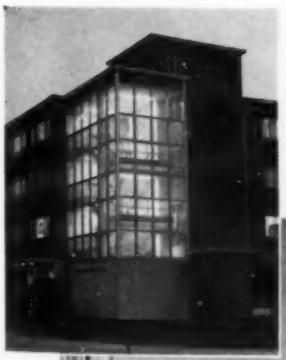

Michigan State University has
3500 No-Sag units now; plans 2000 more!

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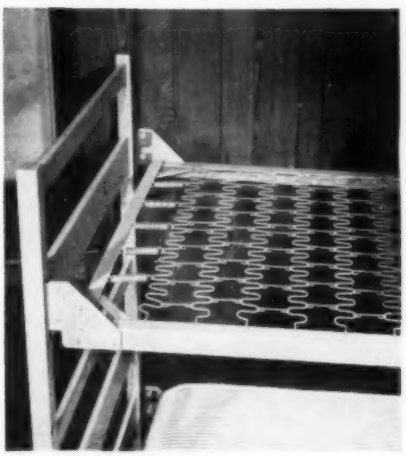
Maintenance-free No-Sag Springs bring new comfort and economy to dormitories!



No-Sag is orthopedically engineered. Reports from physicians indicate backache complaints and discomfort virtually disappear when No-Sag "posturized" units are installed.

Cutting dormitory costs is assured with No-Sag Springs! In addition to low initial cost, No-Sag units are uniquely constructed to be maintenance free. Too, No-Sag is ruggedly built of heavy-duty high carbon steel to withstand generations of student use. Finally, sleeping on No-Sag is comfort itself! These features help explain why more and more leading universities and colleges, such as those named on the right, are specifying No-Sag units for their dormitory needs. For further information on No-Sag construction and costs, write to—

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Dealer and contractor inquiries welcomed

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- Augustana College
- Kent State University
- Oberlin College
- Ball State Teachers College
- University of Detroit
- Michigan College of Mining and Technology
- Berkshire School
- Bowling Green State University
- Indiana University
- Muskingum College

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For the first time—your school can enjoy the tremendous advantages of the PRESTO Pirouette turntable...which has created a sensation in the professional field.

A truly revolutionary mechanism, the Pirouette offers quality reproduction of sound...plus incredibly simple operation ...in a modestly priced turntable that fits easily into school budgets.

Feature for feature, the Pirouette *proves* its superiority! Compare—you'll see why this turntable is considered the crowning achievement of PRESTO—world's largest makers of precision recording equipment.

- Improves record performance immensely — gives your sound system professional quality.
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- Built to take hard knocks of school use—constructed by professionals from finest materials.
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Compare this superb tape recorder value with anything else on the market. SR-27 has PRESTO'S famous 3-motor drive...separate record, erase and playback heads... fast forward and rewind. No take-up clutch. No idler pulleys. Complete with A-920 amplifier (preamp equalizer and 10 watt amplifier) only $588.

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NAMES . . . . .

(*Continued From Page 64*)

personnel, **President Gaylord P. Harnwell** announces. Dr. Ford will succeed **George W. Armstrong,** founder of the university's personnel administration and its director for 28 years. Mr. Armstrong, who will retire next June, has been named consultant on personnel affairs and is engaged in developing an improved personnel benefit program.

Howell H. Brooks, president of Coe College, Cedar Rapids, Iowa, was recently elected president of the Iowa College Presidents Association. He succeeds **C. H. Becker,** president of Wartburg College at Waverly, as president of an association that represents all four-year colleges in the state, as well as the University of Iowa.

Andre Rolland Warren, formerly assistant superintendent of buildings and grounds at Colby College, Waterville, Maine, has been appointed to a similar position at Bowdoin College, Brunswick, Maine.

Allan M. Dewey, assistant to the business manager of Denison University, Granville, Ohio, has been named purchasing agent. He has been a member of the administrative staff at his alma mater since 1943, when he was appointed assistant bursar.

Robert S. Wycoff

Robert S. Wycoff will direct the University of Pittsburgh News Service, succeeding **Max Q. Elder,** who resigned to become director of public relations and educational services at Miami Valley Hospital in Dayton, Ohio. Mr. Wycoff has been a member of the University of Pittsburgh news staff for two years.

Walter Robert Brossman, director of public information at Cornell University, Ithaca, N.Y., since 1947, has been named vice president in charge of development of Colorado College at Colorado Springs. Owing to present commitments at Cornell, Mr. Brossman is not expected to report to Colorado College until next March.

Msgr. Irénée Lussier has just been named rector at the University of Montreal. He will succeed **Msgr. Olivier Maurault,** who recently retired. **Marc Jarry** is the new secretary general of the University of Montreal, succeeding **Marcel Faribault,** who has been ap-

this CALCULATOR may save your vital school records

Did you know that in the U.S. fires start at the rate of one every 20 seconds . . . that 9 schools burn every day?

How important are these records to your institution? How dire would be the consequences if they were destroyed by fire?

Enrollment Records	Research and Laboratory Records
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If fire strikes your school during school hours when vital records are in use (as nearly half of all fires do) would those records survive? How long would your fire last?

Here's a device that will tell you . . . quickly, accurately — without cost. It's the SCHOOL RECORDS FIRE HAZARD CALCULATOR. In minutes you'll *know* whether you have the record protection your school requires, or whether you need more and, if so, how much and what type.

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Safe-File® "60"

FREE! *School Records Fire Hazard Calculator*
This pocket size, card-type Calculator will tell you what the duration of your fire would be . . . takes into account popular misconceptions about fireproof buildings, steel files, insurance and safes. For free copy, write Remington Rand, Room 2152, 315 Fourth Avenue, New York 10, N.Y. Ask for Calculator — SC745 and Booklet "Burning Facts" — SC731.

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NAMES. . . . . .

pointed president and general manager of the General Trust of Canada.

Msgr. Irénée Lussier

Marc Jarry

Mr. Jarry was formerly secretary and legal adviser to the Catholic School Board of Montreal.

Sanford S. Atwood

Sanford S. Atwood, dean of the graduate school, has been named provost of Cornell University, Ithaca, N.Y. He will succeed **Forrest F. Hill,** who has resigned to become vice president of the Ford Foundation in the area of overseas operations. Dr. Atwood will continue as graduate dean until a successor is selected.

Lloyd E. Blauch, a member of the staff of the U.S. Office of Education, has been appointed assistant commissioner for higher education, **S. M. Brownell,** commissioner of education, announced last month. Dr. Blauch joined the staff of the U.S. Office of Education in 1919.

Scott Wilson, formerly principal food service manager of the University of California at Berkeley, is now residence halls supervisor on the Berkeley campus. **John G. Kemper,** central commissary manager, has become principal food service manager.

Chester S. Ball, for 33 years financial secretary of the University of South Dakota, died recently of a heart attack. Mr. Ball retired from the university in November 1953.

Dr. William James Battle, for 62 years a member of the staff of the University of Texas and interim president from 1914 to 1916, died last month at Rocky Mount, N.C., at the age of 84.

Dr. Monroe E. Deutsch, vice president and provost emeritus of the University of California, died October 21 at the age of 76. Dr. Deutsch fought militantly against recent attempts to impose a special loyalty oath on the university faculty and just as militantly against the employment of Communist teachers.

Monroe FOLDING BANQUET TABLES

Direct Prices & Discounts to Schools, Churches, Clubs, Lodges and All Organizations

Full line of folding chairs

MONROE TRUCKS

Transport and store your folding tables and chairs the easy, modern way with Monroe All-Steel Trucks. Each truck is designed to handle either tables or chairs. Construction of Truck No. TSC permits storage in limited space.

Above: Transport-Storage Truck No. TSC

Right: Transport-Storage Truck No. TS8

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THE Monroe COMPANY
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Give to
AMERICAN CANCER SOCIETY

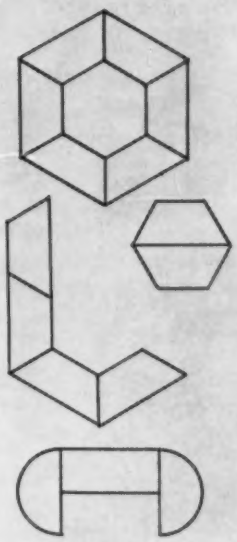
TODAY'S New Look IN SCHOOL FURNITURE WILL BE UP-TO-DATE FOR YEARS!

A Kuehne "First" In School Furniture Construction

All Kuehne Tables and Desks are reinforced to double thickness around edges to insure true straightness and eliminate warping.

Trapezoid, Half-Round and Rectangular Tables permit limitless interesting and convenient classroom groupings. Their adaptability also makes them equally useful in lunchroom, study room, library, anywhere tables are needed.

Storage Shelves, accessible from both sides of table, are recommended because they provide extra space for books, papers, personal belongings, etc.



KUEHNE
(SAY "KEE-NEE")

It's ready now, this classroom furniture of the future—as beautifully simple and uncluttered in styling as it is practical and versatile in use.

Kuehne has built it strong and rugged, but light enough to move about freely. It is virtually wear-proof and scratch-resistant . . . cheerfully, durably finished to harmonize with any color scheme . . . literally maintenance-free. And most important, it fits well within the most modest budgets.

Comparison for quality, for design, for value, will prove this is America's finest school furniture . . . visible evidence of Kuehne's 32 years of leadership and experience.

Write for illustrated brochure

SPECIFICATIONS

Tops, General Electric Textolite bonded to 13-ply hardwood. Reinforced, firmly-braced legs, 1¼" tubular steel with ferrule-type, self-leveling glides. Available in 5 heights: 21", 23", 25", 27", 29". Choice of three colors or satin chrome on metal parts.

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classified advertising

POSITIONS WANTED

Administrative Assistant to Comptroller, Treasurer or Business Manager—One year as administrator in higher education; competence in personnel management, financial management and accounting, supervision of purchasing, athletic financial management, stenographic services (Brunning, Multilith, Addressograph); family background excellent, married, no children; B.B.A. degree, presently employed as salesman; desire opportunity for advancement as college administrator. Write Box CW-272 COLLEGE AND UNIVERSITY BUSINESS.

Administrative Assistant to President, Financial Vice President, Treasurer, Business Manager, Controller — Ten years as administrator in higher education, seven years in secondary education, ten years in industry; proven competence in accounting, budget preparation, financial reporting, supervision of purchasing, maintenance physical plant, dining halls, dormitories, book stores, fund raising, personnel, endowment funds; excellent family background, married, 4 children; B.S. and M.A. degrees; working for M.B.A. and Ph.D.; presently employed in university; desire opportunity for advancement. Write Box CW-267 COLLEGE AND UNIVERSITY BUSINESS.

Business Manager—M.S. in accountancy; eight years experience in small and large institutions; dependable and willing to work; good references; age 32; have family; good health; desire responsible position with small or medium size college. Write CW-274 COLLEGE AND UNIVERSITY BUSINESS.

Business Manager or Assistant—Young man experienced in college accounting and business management; B.S. degree, state university; married; one child; will locate anywhere. Write Box CW-277 COLLEGE AND UNIVERSITY BUSINESS.

Controller, Business Manager, Treasurer—Successful college treasurer and business manager thirteen years; college teaching in business administration four years, experienced in accounting, budget preparation and control, financial reporting, purchasing and plant maintenance; have understanding and imagination; presently employed in college; desire change. Write Box CW-277 COLLEGE AND UNIVERSITY BUSINESS.

Food Administrator—Seven years experience as college food service administrator; five years with state institutions; experienced in budget control and personnel development; married; 35; veteran; desires larger operations; references on request; Write Box CW-271 COLLEGE AND UNIVERSITY BUSINESS.

Food Service Director—Five years experience as food service director of student union at large state university; author of cookbook for Walgreen Drug Store chain; B.S. degree, Iowa State College, experienced in all phases of food service administration; west coast location preferred. Write Box CW-273 COLLEGE AND UNIVERSITY BUSINESS.

Maintenance — Experienced, capable, in all general maintenance of buildings, and grounds; electrical, plumbing, painting, carpentry, etc.; desirous of permanent year round position; capable of taking complete charge; communicate direct with: ALBERT MAGNIN, Eliada Home, Rt. No. 4, Asheville, North Carolina.

Treasurer, Controller, Business Manager—Business corporation director and treasurer desires to enter the educational business management field; 33 years of broad experience in financial and business administration including service as office credit, traffic, and personnel manager; graduate of Dartmouth College. A.B., M.C.S.; married, 2 children, excellent health. Write Box CW-275 COLLEGE AND UNIVERSITY BUSINESS.

"From the towers . . . a flock of bells take flight"

The Chief Chaplains of the United States Air Force select SCHULMERICH

"Carillonic Bells"*

TO RING THEIR SPIRIT-LIFTING HYMNS AT 100 AIR BASE CHAPELS ACROSS THE NATION

Schulmerich "Carillonic Bells" are the most honored of all bells. Remember the article, "He Set the Church Bells Ringing" in the April 1955 Reader's Digest? Now their spiritual influence has been enlisted by the Air Force—100 specially engineered Schulmerich instruments will beautify chapel worship for both Protestant and Catholic airmen—the greatest recognition ever accorded any bell maker.

What next? . . . *honored by installation in your church*, perhaps! Schulmerich offers the world's finest bells, designed for *any* liturgical use in cathedral, church or chapel of *any* faith. Learn how their soul-stirring music promotes religious faith and practice. Write:

SCHULMERICH CARILLONS, INC.
27F47A Carillon Hill, SELLERSVILLE, PA.

"Carillonic Bells" is a trademark for bell instruments of Schulmerich Carillons, Inc.

POSITIONS OPEN

Bursar—Catholic liberal arts college; 2000 enrollment, midwest urban community, million population; direct responsibility for collection of student accounts, general supervision of accounting; college degree; experience in college or university accounting. Write Box CO-176 COLLEGE AND UNIVERSITY BUSINESS.

Business Manager—In a coeducational liberal arts college; write details about age, family, training, and experience to the President, HAMLINE UNIVERSITY, St. Paul, Minnesota.

Superintendent of Buildings and Grounds—At Scarritt College for Christian Workers, Nashville, Tennessee; to replace present incumbent who has reached retirement age; state age, experience, education, salary requirements. Write SCARRITT COLLEGE FOR CHRISTIAN WORKERS, Nashville 5, Tennessee.

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GARBAGE DISPOSAL UNITS

½ H.P. Wastexit model L. new; ideal for small restaurants, fraternities, social clubs; must dispose because of change in building plans; sale price $125. Write PURDUE UNIVERSITY c/o D. F. Finn, Lafayette, Ind.

Rates for classified advertisements are: 20 cents a word; minimum charge, $4.

(No charge for "key" number.)
Forms close 25th of month preceding date of issue.

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The pacesetter in hardwood cabinetwork since 1893!

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TO FINISH

MUTSCHLER
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COMPLETE SCHOOL LINE—FOR FOODS LABORATORY, LAUNDRY, CLOTHING, SEWING, GROOMING, HOME MANAGEMENT, CHILD CARE, ARTS AND CRAFTS, AND GENERAL STORAGE AREAS. AVAILABLE IN NATURAL MAPLE, DRIFTWOOD, OR A WIDE SELECTION OF BEAUTIFUL AND DURABLE COLORED ENAMEL FINISHES.

Mutschler Brothers Company was founded just a few years after the B & O railroad first laid its tracks through the hardwood forests of northern Indiana.

And, today, descendants of the area's pioneer Dutch and Swiss woodworkers are still producing with pride only the finest of hardwood products. This heritage of manufacturing quality and skill is complemented by the technical knowledge of Mutschler sales engineers, who are qualified to advise school boards and their architects on the very latest in school department layouts.

If you have a building or remodeling project in mind for your school system, it will pay to talk with a Mutschler representative. Let him explain, without cost or obligation, how schools of the nation are getting more for their money with Mutschler.

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Nappanee, Indiana

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W. S. BALLOU—Massapequa, L.I., N. Y.; New York City, Long Island (eastern)
SCHOOL EQUIPMENT, INC.—Syracuse 3, N. Y.; New York State
AMERICAN SEATING CO.—Philadelphia 30, Pa.; Pennsylvania, New Jersey (southern), Delaware
QUEENS EQUIPMENT CO.—New York, N. Y.; New York City
R. A. KELLY, INC.—Hempstead, L.I., N. Y.; Long Island (western)

SOUTHEAST and SOUTH

SOUTHERN DESK COMPANY—Hickory, N. Carolina; Maryland, West Virginia, Virginia, North Carolina, Tennessee, Mississippi
AMERICAN SEATING CO.—Atlanta 3, Georgia; South Carolina, Georgia, Alabama, Florida
ALL STATE SUPPLY CO.—Little Rock, Arkansas; Arkansas

NORTH CENTRAL

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Mitchell Camera Films full color panoramic views of Roman Soldier sequence from the Bob Jones University Film, "Wine of Morning."

UNIVERSITY MAKES FEATURE FILM

University Film Production Unit
Shoots Full-Length Motion Picture on Campus

In Greenville, South Carolina, Bob Jones University is demonstrating a remarkable new trend in campus-produced films. This institution has not only reduced filming costs, but has created professional theatre-quality films, like the full-length, feature "Wine of Morning," to equal Hollywood's best efforts.

These remarkable changes have been accomplished through the application of motion picture set techniques and the adoption of professional equipment used by major motion picture studios. The leading example of this development is seen in the increased use of the Mitchell 16mm Professional Camera, whose service-free operation and broad range of use has materially cut the costs of campus film production. Representative of film departments owning Mitchell Cameras are: Bob Jones University, Georgia Institute of Technology, Moody Institute of Science, and the Universities of California...Mississippi...Southern California...and Washington.

Complete information on Mitchell Cameras is available upon request on your letterhead.

Camera instructions are given by Mrs. Katherine Stenholm, Director of the Bob Jones University's film unit.

***85% of the professional motion pictures shown throughout the world are filmed with a Mitchell Camera.**

On the set of Pilate's Judgment Hall the Mitchell Camera focuses on set details created by students.

University cameraman uses standard Hollywood studio 16mm Mitchell Camera for interior scene.

Mitchell Camera
CORPORATION

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GLENDALE 4, CALIFORNIA

Cable Address: "MITCAMCO"

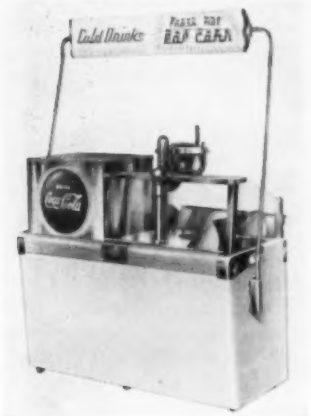
WHAT'S NEW

November 1955

Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 84. Circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Manley Refresherette Is Compact Snack Bar



Occupying only fourteen square feet of space, the new Manley Refresherette is a compact snack bar for quick, efficient food service in the cafeteria or at athletic or other public events. It is a combination of hot dog grill and soft drink dispenser for installation as a counter end or to stand independently. It is designed for simple, trouble-free service.

The new unit includes a two faucet Manley Ice-O-Bar soft drink dispenser, a rotary hot dog grill, a two cubic foot refrigerator, bun steamer or toaster, three condiment cups and a maple carving block. The drink machine in the Refresherette has a capacity of one thousand soft drinks. The cabinet is baked enamel on steel and the drink machine section has a red Formica top. **Manley, Inc., 1920 Wyandotte St., Kansas City 8, Mo.**

For more details circle #810 on mailing card.

Safety and Economy in Louvre-Pilot Lights

Both one and two Gang Combinations, with one combination featuring a Quiette Light Switch, are offered in the complete new line of Louvre-Pilot Light Combinations. The mechanical action of the Quiette Light Switch is such as to assure the safe, quiet operation of both incandescent and fluorescent lights and appliances. The combinations use only a small amount of electricity and are designed for use at entrances and exits, in stairways and corridors and as shielded lights in special areas. **The Arrow-Hart & Hegeman Electric Co., Hartford 6, Conn.**

For more details circle #811 on mailing card.

Folding Doors Are Easily Installed

A new fabric covered folding door complete with cornice, screws, track and Install-It-Yourself instructions is available for closets and wardrobes in dormitories and other residence quarters. Known as Fol-Back, the door features durable steel construction. The vinyl coated fabric coverings are available in a choice of three colors. **Holcomb & Hoke Mfg. Co., Inc., 1545 Van Buren St., Indianapolis 7, Ind.**

For more details circle #812 on mailing card.

Acoustical Suspension With Flexibility

The Accesso Acoustical Suspension System provides immediate accessibility and flexibility. Lights and other ceiling fixtures can be moved in acoustical tile ceilings one module or a dozen in a matter of minutes with the new system. Air conditioning, telephone lines, electrical ballasts and other utilities are in-

stantly accessible and may be repaired or moved without damage to the tile.

The fully concealed system of steel channels and hangers may be installed with minimum labor. Pairs of intergripping angles are clipped to standard supports and slipped into kerfs on two sides of each acoustical tile. An excellent finished job is presented with any size or make of tile.

The design is such that each one foot square or one by two foot tile can be lifted up and rested on the top side of the ceiling. A large clear space can thus be cleared in a minute, for access to utility lines, fixtures and duct work above. Maintenance men have instant access through any single tile or a number of tiles any place in the ceiling. A damaged tile may be replaced individually without disturbing any other. Both original and maintenance costs are described as low. **Accesso System, Inc., 4615 Eighth Ave. N.W., Seattle 7, Wash.**

For more details circle #813 on mailing card.

(Continued on page 76)

Metal Alloy for Plumbing Drainage

A new metal alloy with special qualities has been developed in the Josam research laboratories for use in plumbing drainage products. Known as Nikaloy, it is a solid metal alloy with a high nickel content which takes a high polish. The "satin finished" surface does not crack, peel or wear off, eliminating maintenance of polishing and buffing. The new alloy has high tensile strength and high resistance to surface wear, damage, marring and corrosion. Nikaloy does not tarnish or discolor and will be used in place of white metal for Josam plumbing drainage products. **Josam Manufacturing Co., Michigan City, Ind.**

For more details circle #814 on mailing card.

Automatic Portion Control With Milk Dispenser

Portion control and serving convenience are two features of the new line of Meterflo Bulk Milk Dispensers. The quantity to be served is preset by fingertip control dial and portion control from one to 24 ounces is maintained. Delivery rate can be metered up to four ounces per second.

The new dispensers are adaptable to all types of food service installations and are available in floor and counter models, for push-button or coin operation. They are especially adaptable to self-service installations in schools and other institutions. Meterflo Dispensers use standard five and ten gallon dairy cans. They are also available for other dispensing

operations such as refrigerated juices. Serving temperature is maintained at about forty degrees F. **Meterflo Dispensers, 627 Grove St., Evanston, Ill.**

For more details circle #815 on mailing card.

What's New . . .

Automatic Coffee Maker Has Push-Button Operation

Uniformly good fresh coffee is ready at any time without waiting when made in the E-Z Model 4B Automatic Coffee Maker. Push-button operation is available for automatic filling of a ten cup serving decanter or for manual operation to fill a cup or partly fill a decanter.

Liquid coffee concentrate prepared from restaurant type soluble coffee or frozen type liquid concentrate is used in the dispenser to make fresh coffee available whenever needed, without waiting. Operation is adjustable for coffee strength and decanter sizes. Hot water is available from a third push-button for making tea, hot chocolate and for other purposes. The unit will serve from 40 to 400 cups of coffee per hour. It requires minimum space, is insulated, safe and easy to handle. **Steel Products Co., 40 Eighth Ave., S.W., Cedar Rapids, Ia.**

For more details circle #816 on mailing card.

Electronics Trainers for Classroom Use

A versatile device developed for training military personnel in electronics maintenance is now available to schools. The new RCA Dynamic Electronics Trainers provide equipment for classroom use with the RCA Model 161 Instructors Demonstrator and the RCA Model 121 Student Laboratory Set for student practice. Manuals containing lesson outlines and laboratory experiments for all circuits and combinations of circuits permit adaptation of the equipment to any existing electronics program. They also provide a foundation for developing a new program for training in electronics.

Model 161 Instructors Demonstrator contains 35 chassis type panels, each a different circuit. All circuits may be demonstrated individually, or in chain operation. Panels are finished in non-reflective black and can be marked with chalk. They are easily installed, with all connections automatic upon installation. The student model contains 35 chassis similar to those in the instructor's model. A kit of faulty components is used to demonstrate failures and to give the student practice in repairing inoperative equipment. **RCA Service Company, Inc., Camden, N. J.**

For more details circle #817 on mailing card.

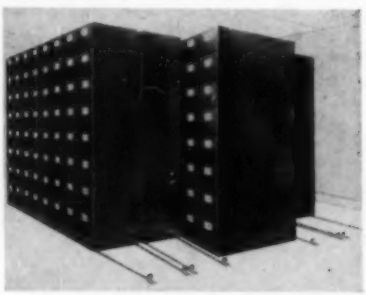
Improved Cork Tile Has High Soil Resistance

The new Gold Seal Cork Tile has a smooth surface finish which makes it easy to clean and keep clean. It is made by a new process which gives it high soil resistance and minimizes the characteristic burnt odor found in some cork tiles.

Cork tile is comfortable underfoot and attractive in appearance. A natural insulator, it makes floors warm in winter and cool in summer. The new tile is finished with a smooth, highly polished surface which is sound-absorbent and longwearing. It is available in ⅛ inch and 3/16 inch gauges in 6 by 6, 6 by 12, 9 by 9, and 12 by 12 inch die-cut tiles. They are installed with the new Gold Seal "Three-Twenty" adhesive. **Gold Seal Division, Congoleum Nairn, Inc., Kearny, N.J.**

For more details circle #818 on mailing card.

Record Storage System Is Mobile



A new system of record storage is now being manufactured in this country under Foulkes International Patents. The new mobile technic is said to add 30 to 70 per cent more transfer file space in storage areas.

The Dolin "400" Series Steel Transfer Files are interlocked and mounted on mobile bases fitted with special grease packed ball bearing wheels. Mobile units are placed in a row on special tracks. Several mobile rows are placed directly in front of a fixed row, each mobile row containing one unit less than the fixed row. Each section of mobile files rolls easily sideways for access to rear rows. The system permits almost effortless movement of heavy loads, thus making it easy to get to any desired file. Aisle space can thus be converted to actual storage space. The mobile storage system is adaptable to active record areas, office supplies, linen supplies and other file and storage areas. **Dolin Metals Products, Inc., Mobile Storage Div., 315 Lexington Ave., Brooklyn 16, N. Y.**

For more details circle #819 on mailing card.

(Continued on page 78)

Flexalum "Twi-Nighter" Gives Shade and Ventilation

Annoying light leaks are eliminated with the Flexalum "Twi-Nighter" aluminum venetian blind, but ventilation is not cut off. The cord fittings in the new unit have been redesigned so that the slats fit snugly together when closed, keeping out all light.

"Twi-Nighter" blinds are offered in fifteen decorator colors, with marproof finish which does not chip, crack or peel. Flexalum tapes are of plastic which can be wiped clean and does not fade, fray, shrink or stretch. The colorful aluminum slats snap back into perfect shape, even if bent to a 90 degree angle. The cord controlling the position of the slat is nylon and the plastic tassel on the end of the cord is treated so that it will not rattle against the blind. **Hunter Douglas Corp., 150 Broadway, New York 7.**

For more details circle #820 on mailing card.

Teacher's Storage Cabinet Has Wardrobe Compartment

An attractive yet extremely practical unit in Fleetwood Flexible Furniture recently introduced is the No. 1050 Teacher's Storage Cabinet. Behind the positive closing doors are all of the storage areas needed to facilitate the work of the classroom teacher. In addition to shelves, drawers and file drawers, there is a wardrobe compartment with hat shelf, pole for coat hangers, mirror and cosmetics tray.

The cabinet is one unit in the new line designed by Henry P. Glass and built by Fleetwood of steel and wood. Highest quality materials and workmanship are augmented by a smooth, tough finish film which protects while bringing out the natural beauty of the white maple panels. The units are easily cleaned and kept in good condition because of smooth contours, flat surfaces and durable finishes. Door catches are rugged and ensure quiet closing and adjustable shelf hardware permits arrangement of interior

shelves according to need. The unit is 76 inches high, 47¾ inches wide and 22 inches deep. **Fleetwood Furniture Co., Grand Haven, Mich.**

For more details circle #821 on mailing card.

Ever see a painter work with Barreled Sunlight Odor-Free Alkyd Finishes? It's *enlightening* . . . really something to see!

With just *one easy coat* he can brighten a room like lightning. With no delays from sagging, lapping or color variations . . . even on large unbroken areas . . . a room can be started in the morning and the job finished and *dry* in time for use that night. Barreled Sunlight Odor-Free Alkyd Finishes are that fast . . . *lightning fast!*

What's more, one coat of these miraculous flat and semi gloss finishes looks as well . . . if not better . . . than two coats of ordinary paints. Yes, and that one coat keeps its fresh painted look longer. You can wash it, scrub it . . . even scuff marks wipe right off.

To put it straight to the heart of your painting problems . . . no other paint will save you as much in materials, labor, maintenance, and room down time as Barreled Sunlight *Odor-Free Alkyd Flat and Semi Gloss Finishes.*

Write . . . right now . . . for free color card and name of your nearest Barreled Sunlight distributor. Barreled Sunlight Paint Co., 35-K Dudley St., Providence 1, Rhode Island.

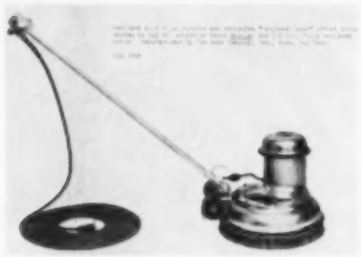
Barreled Sunlight® Paints

In whitest white or clean, clear, wanted colors, there's a Barreled Sunlight Paint for every job

What's New . . .

Floor Machine for Heavy Duty Cleaning

An addition to the K line of floor machines is offered in the new K-19. The



"balanced-power" 19 inch machine is designed for use on large floor areas and for extra heavy duty cleaning. It features all of the advantages of the Kent K line with offset motor for "balanced-power" by minimizing torque and counterbalancing the weight of the handle. All weight is on the brush and distributed evenly in operation for even and long wear.

The K-19 incorporates the Kent "floating power" principle which withstands shock and allows power to flow smoothly to the brush. Attachments for handling any floor maintenance job, including wet and dry scrubbing, are available with the new machine. An automatic release switch allows full control at all times of the adjustable handle. **The Kent Company, 736 Canal St., Rome, N.Y.**

For more details circle #822 on mailing card.

Lightweight Blankets in Virgin Wool

The new Lightweight 152 Blankets are 100 per cent virgin wool. They are soft and warm, providing light covering for warm weather and extra covering for cool weather. Lightweight Blankets are offered in seven attractive colors with matching satin edge. They are of high quality in 72 by 90 inch size. **Horner Woolen Mills Co., Eaton Rapids, Mich.**

For more details circle #823 on mailing card.

Air Filter Is Precision Stamped

Every air opening in the new Evans Air Filter is precision stamped. Every Evans filter of the same size thus has the same number of "air scoop" openings. This control of size, shape and position of the air scoop openings permits having larger openings on the inlet side, progressing to smaller openings on the outlet side of the filter medium.

With this new design an Evans filter can hold up to 200 per cent more dirt without harmful restriction to overflow. Dust and lint are more effectively removed from air passing through the new filters, resulting in cleaner air. The new filters are of all aluminum construction and are built for lifetime service. **The George Evans Corp., Moline, Ill.**

For more details circle #824 on mailing card.

Terrazzo Seal Prevents Discoloration

Terrazzo, clay tile, ceramic tile and marble floors get a tough, waterproof seal that resists dirt and stains when "Huntington Terrazzo Seal" is applied. The new sealer prevents discoloration and damage from improper cleaning methods and provides floors with a non-slippery surface which is easy to clean. **Huntington Laboratories, Inc., Huntington, Ind.**

For more details circle #825 on mailing card.

Classroom Furniture of Fiberglas-reenforced Plastic

The seat-back and top of the new classroom seating unit developed by William James Bargen are made of Fiberglas-reenforced plastic. The new units are durable, easily maintained and provide comfortable seating. They are available in green, gray, buff, pink, brown and black for any classroom color combinations desired.

The Fiberglas molded desk tops and seat-backs are mounted on the Bargen

designed Staput/movable pedestal understructure which permits separate adjustments to move the seat upward or downward and the desk upward and outward to fit the pupil. Fiberglas-plastic desk tops and seat-backs mounted on tubular steel understructures are also available in chair and table units. **General School Equipment Co., 869 Hersey St., St. Paul 4, Minn.**

For more details circle #826 on mailing card.

Fiberglass Tray Has Non-Porous Surface

Made of fiberglass and polyester resins, the new Toteline Tray No. 459 has a smooth, non-porous surface which cannot rust, chip, absorb odors or peel. It is easily and quickly cleaned with hot water or steam and the rounded corners facilitate sanitation. The tray is light and strong, does not warp or rot and requires minimum maintenance. It is available in 14¼ by 25¼ inch size, 1⅛ inches deep. **Molded Fiberglass Tray Co., Linesville, Pa.**

For more details circle #827 on mailing card.

(Continued on page 80)

Citation Tape Recorder Fills Many Requirements

A teaching aid and a practical instrument for the administrator and principal are combined in the new F35-B Magnecord Citation Tape Recorder. The flexible unit is suited to a wide variety of uses in classrooms, at dramatic rehearsals, in speech groups and music departments, and in the office.

The Citation Magnecorder is a two speed, full frequency range tape recorder with full 10 watt amplifier-speaker system for use as a public address system when required. The Magnecord VU meter indicates proper volume setting and eliminates distortion. The unit is contained in a single case for easy portability. **Magnecord, Inc., 1101 S. Kilbourn Ave., Chicago 24.**

For more details circle #828 on mailing card.

Low-Cost Line of Small Generating Plants

Highly suitable for mobile and portable applications, the new line of small Onan air-cooled, gasoline-operated electric generating plants is designed for long life. The heavy-duty, four cycle engine-driven plants range in size from 500 to 2500 watts and provide high output per pound weight at low cost. **D. W. Onan & Sons Inc., University Ave. S. E. at 25th, Minneapolis 14, Minn.**

For more details circle #829 on mailing card.

Wall Fountain Has Modern Design

The new Model No. 7X Wall Fountain combines extreme ruggedness with modern design. Styled by Channing Wallace Gilson, industrial designer, it is free from dirt-catching corners and is attractive in appearance. It is constructed of acid-resisting enameled cast iron for permanent, trouble-free operation. The angle stream, shielded head of chromium plated brass assures sanitation. The bubbler is mounted well above the bowl rim to protect the supply outlet from back-up

water. It has positive anti-squirt, automatic stream control to prevent water from getting onto floors or walls. **Haws Drinking Faucet Co., 4th & Page Sts., Berkeley 10, Calif.**

For more details circle #830 on mailing card.

TUITION REFUND PLAN

Case #420.483

Paul was studying at Hancock Institute when, as sometimes happens, his father was transferred to a distant city. At the end of his first semester Paul was withdrawn to continue his education in a more convenient location.

By the terms of the tuition contract Paul's parents were obligated to pay his fees for the *entire* year, the second half of which was still payable. However, both parties to the contract were protected by the Tuition Refund Plan (Broad Form) and Hancock received from us 60% of the fees for Paul's second semester. Had it not been for this protection either Paul's parents would have been forced to pay two schools for his education during the second half of the year or the Institute would have suffered a loss of tuition income.

The stabilizing effect of the Tuition Refund Plan on the budget of a school or college is an important reason for its adoption and the goodwill generated by its prompt refunds is of great value in maintaining good public relations.

For twenty-six years the Tuition Refund Plan has served the country's schools and colleges. Now over three hundred of them offer it to their students, either in its original form or in the Broad Form which extends the coverage to include non-medical withdrawals and dismissals.

All business executives of schools and colleges should know the facts about the Tuition Refund Plan. Write to us for complete information.

A. W. G. DEWAR
INCORPORATED
Educational Insurance Underwriters
141 Milk Street **BOSTON** Massachusetts

What's New . . .

Gas-Fired Kettle in Modernized Version

Cooking is done by means of gas heat, applied directly to a heavy gauge seam-

less aluminum container, in the modernized version of the gas-fired kettle. It is designed for use where quantities of food must be prepared and steam is not readily available. It serves with good results as a stock kettle for cooking soups, stews, fresh vegetables and frozen foods. It can also be used to produce roasts, and tests in actual usage indicate that meat and fowl are roasted quickly in the new kettle with minimum fuel and shrinkage.

The new kettle has an automatic pilot and a flue located at a 45 degree angle from the rear-center line to allow the kettle to be placed close to a wall. A tangent draw-off, easily cleaned valve provides convenient emptying of the kettle and simplifies sanitation. **The Aluminum Cooking Utensil Co., Inc., New Kensington, Pa.**

For more details circle #831 on mailing card.

Colorlith Sheet Material for Table Tops

Developed for table tops in kitchens, laboratories and other areas requiring protective finishes, Colorlith is a new sheet material which is available in charcoal gray and cameo brown. It is basically a mixture of Portland cement and asbestos fibers and resists heat, impact and most types of active chemicals. The surface can be polished to a high degree of smoothness yet retains a soft textured appearance which prevents glare. No protective coating is needed under normal conditions.

Colorlith has high resistance to physical abuse. It is fabricated with metal working tools to drill, rout, mill and otherwise machine the sheets. Surfaces and edges are smooth and require little additional polishing. It is supplied in sheets 48 by 96 inches in thicknesses of ¼, ⅜, ½, ¾, 1 and 1¼ inches. **Johns-Manville, 22 E. 40th St., New York 16.**

For more details circle #832 on mailing card.

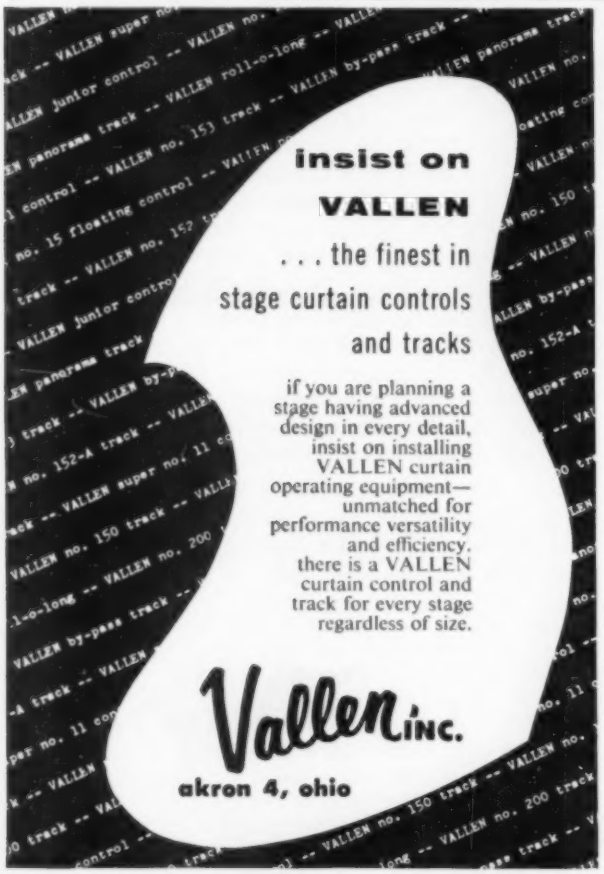
Pot and Pan Washer Has Streamlined Design

All of the high quality of material and operation in earlier models are incorporated into the redesigned FMC Utensil Washers. The exterior has been streamlined for attractive appearance and easy cleaning. A new simplified control panel has been developed which is just waist high for easier operation.

FMC Utensil Washers are now available in single compartment as well as double compartment models. The single compartment models will take care of smaller operations serving 500 meals. The

line now includes utensil washers for institutions handling from 500 to 10,000 meals per day. **Food Machinery and Chemical Corp., Hoopeston, Ill.**

For more details circle #833 on mailing card.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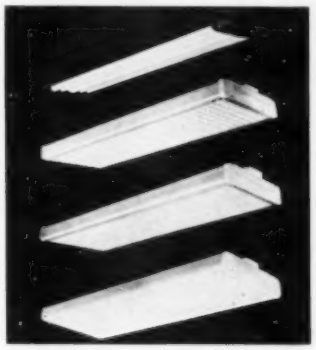
What's New . . .

Modern Shallow Design in "Basic Unit" Fixtures

The "Basic Unit" line of Slimline fixtures has been redesigned to give a mod-



ern shallow appearance. They match the Bipin Fluorescent Rapid Start units and the versatile series makes both Rapid Start and Slimline baskets interchangeable. Standard individual turret lampholders are utilized in all Slimline Basic Units: the Skyliner, Skylouver and Sky-Lume. Installation is simplified as is maintenance because of uniform lamp sizes and baskets hinged from either side for easy lamp replacement. The baskets are removed with minimum effort when cleaning of the entire units is indicated. **Electro Silv-A-King Corp., 1535 S. Paulina St., Chicago 8.**

For more details circle #834 on mailing card.

Metal Buildings Have Standardized Parts

The line of Butler pre-engineered metal buildings for quick construction without special tools or skilled labor, has been standardized and parts reduced. The complete new line offers 512 combinations for providing extra classrooms and other school buildings at minimum cost. The number of building combinations available has been increased more than eleven times although the total number of parts has been reduced by two-thirds, resulting in greater savings in time and erection costs.

Butler metal buildings are adaptable to all architectural situations and are used for schools, annexes, gymnasiums, shop buildings, music additions, dormitories and combinations of all of these. One new development in the line is a new drive-fast rivet for bolting roof panels on. It cuts sheeting time on roofing in half. Another new feature is the Butler Lite-Panl consisting of translucent sheets for modern interior daylighting. The buildings are fireproof and weathertight, can be expanded quickly and cheaply, and can be moved if necessary. They afford a clear-span space permitting the whole floor area to be fully utilized for cafeterias or as assembly-gymnasium combinations. **Butler Mfg. Co., 7400 E. 13th St., Kansas City 26, Mo.**

For more details circle #835 on mailing card.

(Continued on page 82)

Food Mixer Has Automatic Timer

A completely automatic timer on the new Model 1222 Portable 22 quart Univex Food Mixer allows speed changes without stopping. The low cost, powerful unit features an elevating and swing bowl action that permits mixing at adjustable depth; planetary mixing action; ease of loading and unloading, and a power take-off at the front of the machine that allows the use of standard attachments such as meat choppers, vege-

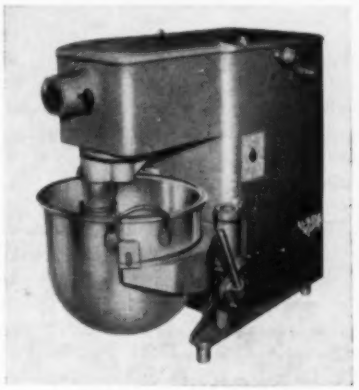
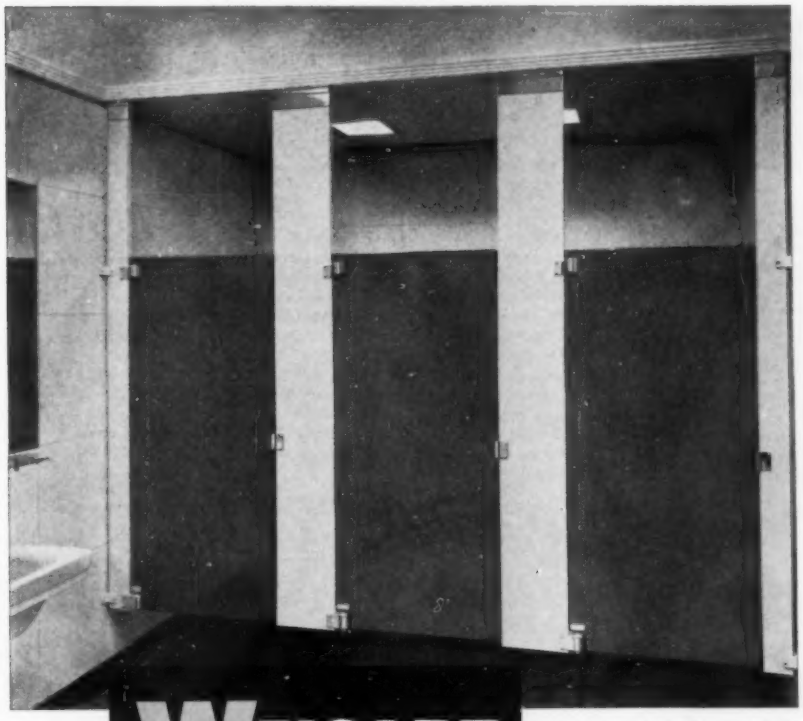


table slicers, knife sharpeners and other accessories, with the Univex Special Adapter. **Universal Industries, Inc., 360 Mystic Ave., Somerville 45, Mass.**

For more details circle #836 on mailing card.



WEISART COMPARTMENTS

This is typical of many installations of Weisart Compartments in today's finest public and institutional buildings.

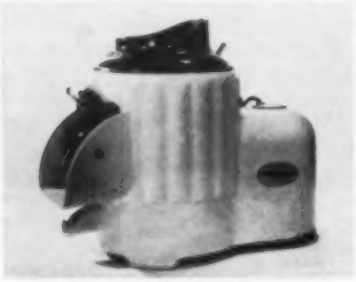
FINE APPEARANCE MAXIMUM CLEANLINESS AND DURABILITY

Stamina to withstand the hardest usage and still retain their fine appearance makes Weisart Compartments the logical choice for college and university buildings. Their enduring serviceability has triple protection (1) steel, galvanized, yet "smooth as glass" (2) Bonderized for added corrosion resistance and positive adhesion of enamel (3) synthetic primer and enamel separately baked. Highly protective surface with lustrous beauty, durable and easily maintained. Choice of 24 colors! Ceiling-hung Weisart Compartments leave floor clear for cleaning. Ask your architect or write for detailed information.

HENRY WEIS MFG. CO., INC.
1139 Weisway Building
Elkhart, Indiana

What's New . . .

Redesigned Potato Peeler in Portable Table Model



Several new features are offered in the redesigned Peelmaster potato peeler. Casting thickness has been reduced to lighten weight and reduce costs. The interior is constructed to diversify the tumbling of potatoes and other vegetables on the abrasive peeling disc for smoother and faster results. The new luster two-tone exterior finish is easily wiped clean for easy maintenance and all metal used is rust and corrosion resistant. The redesigned machine is available in two types of table models and a floor model. **Service Appliance Co., Inc., P. O. Box 46, Norwalk, Conn.**

For more details circle #837 on mailing card.

Synthetic Detergent Cleans With One Application

Time and labor are saved in floor cleaning operations with the new Fullclean synthetic Detergent. One spreading and one rinsing is sufficient to clean wood, concrete, terrazzo, linoleum, asphalt or tile composition floors as well as walls efficiently. The highly concentrated detergent is dissolved in water in varying amounts, depending on the job to be done. It can be used to strip old wax from floors, the strength of the solution required depending on the age and thickness of the wax layer. Weaker solutions will clean soil from floors without removing wax. After the single rinsing, the floor is left clean, with no film. Fullclean works on soil of both acid and alkaline derivation and is effective in either hard or soft water. It is available in one and five gallon cans, 30 and 50 gallon drums. **The Fuller Brush Co., Fuller Park, Hartford 2, Conn.**

For more details circle #838 on mailing card.

Folding Chairs for Auditorium Seating

The new line of Hampden Folding Auditorium Chairs is designed for comfort and convenience. Strong tubular steel or rigid channel steel are used in the chairs which are available in five models. All metal parts are rust resistant so that chairs may be used out of doors. The baked-on finish in beige or gray is chip resistant. Models 75 and 77 have brown upholstery with beige frames or red with gray and the fabrics are soil, water, alcohol and heat resistant.

Backs and seats are contoured and designed for comfortable seating. The chairs are quality constructed for long wear, easy folding and storing and minimum maintenance. Model No. 73 has a wood-grained plywood seat. Model 76, illustrated, is of all steel construction,

with tubular steel frame, while Model No. 74, also of all steel construction, has a channel steel frame. **Hampden Specialty Products, Inc., Easthampton, Mass.**

For more details circle #839 on mailing card.

TRADE MARK Neumade

ALL-STEEL FILM FILES

PROTECTS YOUR FILM!

YOU CAN BE SURE that your stored films will be safe from dust, heat or dryness with NEUMADE EFFICIENT ALL STEEL FILM CABINETS.

Model MM-119—A practical storage cabinet for the varied film library. Holds 400, 800, 1200, 1600 ft. reels; 100 filmstrip cans plus utility drawer in base. Overall size: 30" wide, 70" high, 16" deep.

Over 50 models to choose from.

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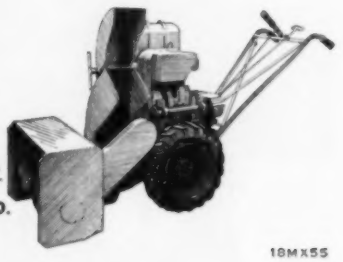


For details, write Dept. TW.

THE MAXIM SILENCER CO.
88 Homestead Avenue
Hartford, Connecticut

18MX55

What's New . . .

Product Literature

• **Catalog A46A,** released by Weston Electrical Instrument Corp., 614 Frelinghuysen Ave., Newark 5, N. J., gives descriptive information on **Weston Laboratory Standard Instruments.** Expanded information on frequency coverage, frequency compensation and wave form effect pertaining to the Model 325 Voltmeters, Ammeters and Wattmeters is included.

For more details circle #840 on mailing card.

• **"Your Soup Menu"** is the title of a new 20 page recipe booklet available from H. J. Heinz Company, P. O. Box 57, Pittsburgh 30, Pa. The booklet provides 75 adaptations of the 15 Heinz Soups available for institutions.

For more details circle #841 on mailing card.

• **Anemostat Draftless Aspirating Air Diffusers for Conventional or High Velocity Systems** are discussed in **Selection Manual No. 50** issued by Anemostat Corporation of America, 10 E. 39th St., New York 16. The 64 page booklet is plastic bound to lie flat in use. It discusses air distribution definitions, how to select Anemostat air diffusers, static pressure factors and other subjects related to air conditioning systems. Performance data and specifications on units are also included.

For more details circle #842 on mailing card.

• Form A-284 is a factual folder on **Sunroc Water Coolers** issued by Sunroc Corporation, Glen Riddle, Pa. Various models are illustrated and individual capacity charts and specifications for each type are given. Additional charts are included which provide detailed information on the proper water cooler selection for individual requirements.

For more details circle #843 on mailing card.

• A new report entitled **"Specifications for Cleaners for Use on Asphalt Tile Floors"** has been announced by The Asphalt Tile Institute, 101 Park Ave., New York 17. It was developed by the Institute's Technical Research Committee to cover the many new products in the maintenance field. It is designed to indicate not only all products that have an injurious effect on asphalt tile, but also those that will be irritating to the human skin.

For more details circle #844 on mailing card.

• An attractively laid out booklet tells the story, in text and sketches, of the **Self Closing Ropeless Hamper Bag.** Operating safely without ropes or grommets, the bag efficiently handles laundry with minimum effort on the part of personnel. Information on its use is interestingly presented in the booklet published by the Self Closing Ropeless Bag Co., 548 Asylum St., Hartford, Conn.

For more details circle #845 on mailing card.

(Continued on page 84)

• The new Trim Line of school furniture is described and illustrated in the **School Furniture Catalog** released by Heywood-Wakefield Company, Gardner, Mass. Also included is information on the standard tapered line and on auditorium chairs made by the company. The attractive catalog, printed in color, has a file-type binding for quick reference in the catalog file.

For more details circle #846 on mailing card.

• **Form No. 159** describes the various types of **Carlyle Quarry Tile.** Brought out by The Mosaic Tile Co., Zanesville, Ohio, the eight page catalog shows all the colors and some of the patterns available in the line: Complete size, shape and trim unit information is given for the different types of tile and typical installations are pictured.

For more details circle #847 on mailing card.

• The advantages of Foamglas insulation and the story of some typical installations are given in a new booklet, **"For More Reasons Than One . . ."** It tells how Foamglas cellular glass insulation solved severe insulation problems, shows application of the product as insulation in roofs, ceilings, walls and floors, and is an indication of the reason for the expansion program now underway by Pittsburgh Corning Corp., 1 Gateway Center, Pittsburgh 22, Pa.

For more details circle #848 on mailing card.

Sligh offers the furniture dealer, interior decorator and architect an outstanding selection of contract furniture ideally suited to colleges, hotels, motels, hospitals and other institutions. Our designers will gladly cooperate in developing new groups or pieces to your particular specifications. Complete details on request.

• Dormitory room at Michigan State College furnished with Sligh contract pieces

SLIGH FURNITURE

SLIGH-LOWRY FURNITURE COMPANY • 174 East 11th Street • Holland, Michigan • Telephone 3465

What's New . . .

• A new catalog on **"Utility Trucks for Schools"** is available from The Paul O. Young Co., Line Lexington, Pa. The complete line of janitor carts, platform trucks, custodial trucks and piano carriers used in school maintenance is illustrated and described in the 24 pages.

For more details circle #849 on mailing card.

• A simplified system for organizing needed work and budgeting and controlling costs in a small school system of five buildings or less is offered in **"A Simplified Program for Effective and Economical Building Maintenance."** Available without charge from The Tremco Manufacturing Co., 8701 Kinsman Road, Cleveland 4, Ohio, the program consists of various inspection reports, maintenance orders, requisitions and similar material and is based on the principle that regularity of inspection results in lower building maintenance costs. Tested procedures for keeping tab on the condition of school buildings from top to bottom and inside and outside are included.

For more details circle #850 on mailing card.

• Bulletin L155P describes **Packaged Luxtrol Light Control Equipment** for use in institutions. Available from The Superior Electric Co., Bristol, Conn., the twelve page booklet discusses and illustrates Packaged Luxtrol light controls from the smallest to the largest size.

For more details circle #851 on mailing card.

• **The Frionor Institutional Service Chart** tells at a glance how to prepare and serve all of the present known types, sizes, portions and weights of frozen fish quickly and economically. Pre-cooked, breaded, ready-to-cook and raw fish for each of the various sized packages especially created by Frionor for institutional use are included in the chart. The chart, 11 by 17 inches in size, was created by Norwegian Frozen Fish, Ltd., 34 Exchange Place, Jersey City 2, N. J., processors and distributors of Frionor Frozen Fish, as a guide for institutional food service departments.

For more details circle #852 on mailing card.

• **Catalog No. AL-2817,** entitled "Across the Land. . . . It's Cardineer Rotary Record Systems," describes the new record keeping unit. Brought out by Diebold, Inc., 818 Mulberry Rd., S. E., Canton 2, Ohio, the 20 page multi-colored catalog discusses each phase of record keeping individually and case histories are given to support their findings. Typical installations are pictured in addition to many other illustrations.

For more details circle #853 on mailing card.

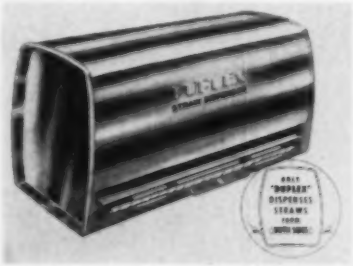
Suppliers' News

G. S. Blakeslee & Co., 1644 S. Laramie Ave., Chicago 50, manufacturer of Blakeslee kitchen machines, announces completion of a new, modern factory building for expanded production facilities. The new plant is number four in the Blakeslee operation and located adjacent to the number two plant. It is designed for the fabrication of dishwasher tanks and mixing machine columns.

Johnson Service Co., 507 E. Michigan St., Milwaukee 2, Wis., manufacturer of automatic temperature and air conditioning control systems, announces the expansion of four eastern district branch offices. The Boston office has moved from 20 Winchester St., to a new building at 64 Moulton St., Cambridge 38, Mass. A new two story addition is being added to the branch at 2853 N. 12th St., Philadelphia 33, Pa. A new two story building at 2117 M St., N.W., Washington 7, D.C., houses that office. The Norfolk, Virginia, branch has moved from 117 W. 21st St. to a new building at 4701 Colley Ave., Norfolk 5.

Stacor Equipment Co., 768 E. New York Ave., Brooklyn 3, N. Y., manufacturer of Stacor Lifetime steel drafting room furniture and drawing, tracing and x-ray equipment, announces the addition of Plant No. 2 to facilities for the production of its equipment. Located at 172-184 Empire Blvd., Brooklyn, the new plant will provide space to handle the additional volume of Stacor equipment.

DUPLEX
CUTS Straw COSTS IN HALF!



15.95

• Not since the invention of soda straws have school lunch rooms, and wherever straws are being served, been faced with such vital a problem of cutting the ever increasing high-cost of straws. Wrapped straws are expensive, the wrappers are annoying. Unwrapped straws cost less than half, and may be used, if dispensed from an approved, sanitary straw dispenser. The new "two-way" DUPLEX is hygiene approved, it dispenses one straw at a time from either side of the dispenser . . . 6½" and 8½" Standard, 6½" and 8½" Jumbo. Made of stainless steel with self-base. *Unconditionally guaranteed.* If not available at your Jobber . . . order direct, or write for descriptive literature . . . Dept. CU-2.

DUPLEX STRAW DISPENSER CO.
511 N. LA CIENEGA BOULEVARD, LOS ANGELES 48, CALIFORNIA

Modern simplicity . . . an attractive green border on Walker's "Narrim" shape. Smart appearance . . . moderately priced. For maximum sanitation, durability and matchless quality, there's nothing finer than Walker Vitrified China. Send for free folders and name of nearest dealer.

THE WALKER CHINA CO., BEDFORD, OHIO

PROD

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PERMIT NO. 136
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3 Easy Steps make FLOOR MAINTENANCE Savings!

HILLYARD CHEMICAL CO.
St. Joseph, Missouri

Please have the Hillyard "Maintaineer*" in my area show me how a Hillyard Floor Treatment Plan saves maintenance dollars.

Name.....Title.....

Institution.....

Address.....

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* A trained floor treatment expert

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A Hillyard PLAN WILL SAVE LABOR COST

Yes you can have the finest treatment and maintenance program that's in use today in thousands of America's buildings—yet enjoy savings that will amaze you. Three simple steps can bring you this economy.

1 BUY QUALITY MATERIALS. Don't let cheap materials fool you. Remember 95c out of every dollar spent for floor maintenance goes for labor. It's not the original cost that counts. Hillyard products are made to last longer—actually save up to 50% in labor costs.

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Find out today how Hillyard recommendations, made by a trained floor expert, can benefit you.
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INSURE IDEAL TEMPERATURES

CUT HEATING and COOLING COSTS

with JOHNSON CONTROL

At University of Cincinnati; top, McMicken Hall; center, Herbert Greer French Residence Hall; bottom, Alms Building.

No other institution presents such a wide variety of temperature control requirements as the modern college or university. Classroom buildings, dormitories, libraries, science and laboratory buildings, teaching hospitals, field houses—each involves a *different* control problem. So does its particular heating, cooling, ventilating or air conditioning system.

Special problems, like yours, call for *specialized experience.* And Johnson has it—*more specialized experience than anyone else!* The superior performance of Johnson Control has been demonstrated on hundreds of campuses—in thousands of buildings of all types and sizes.

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To be sure you get the right temperature control system for each of your own buildings—one that will insure ideal temperatures and provide waste-free heating or cooling operation—turn the job over to the specialist Johnson organization. An engineer from a nearby Johnson branch will gladly survey your temperature control problems and give you his recommendations without obligation. Johnson Service Company, Milwaukee 1, Wis. Direct Branch Offices in Principal Cities.

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